NUCLEAR REGULATORY COMMISSION

ORIGINAL

In the Matter of: PHILADELPHIA ELECTRIC COMPANY
LIMERICK GENERATING STATION
NRC'S ENVIRONMENTAL REVIEW

50-352
353

PUBLIC MEETING

DATE: August 18, 1982 PAGES: 1 - 132

AT: Pottstown, Pennsylvania

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Per H. Abelson

ALDERSON REPORTING

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

PHILADELPHIA ELECTRIC COMPANY
LIMERICK GENERATING STATION
NRC'S ENVIRONMENTAL REVIEW

PUBLIC MEETING

Nuclear Regulatory Commission
Conference Rooms A & B
Holiday Inn
King Street and Route 100
Pottstown, Pennsylvania

Wednesday, August 18, 1982

The public meeting convened, pursuant to notice, at 8:00 p.m.

BEFORE:

EUGENE MOODY, Moderator
THOMAS NOVAK
WILLIAM REGAN
STEVE LEWIS
HARVEY ABELSON

ALSO PRESENT:

A. SCHWENCER
T. MO
T. POLICASTRO
L. SOFFER
S. ACHARYA
R. WESCOTT
E. CHAN
E. PENTECOST
B. RICHTER
M. MASNIK
J. LEHR.
E. McCABE

* * *

C O N T E N T S

C O N T E N T S

P R O C E E D I N G S

MR. MOODY: It is now 8 o'clock and I think we will start this public meeting on the Environmental Review of the Limerick Power Plant.

My name is Eugene Moody and I am the Borough Manager in Pottstown. I am here, I am sure, because Mayor Jamison recently had an operation and was first choice to perform this service.

We do want to welcome you to Pottstown and welcome the gentlemen here from the Nuclear Regulatory Commission and their staff and hope that we have a productive evening.

I am a little bit chagrined this evening. My wife is on vacation and I thought I would stop at the ball game just a little bit east of here before the meeting, which I did. I had my coat on. I put it in the trunk of the car and the keys to the car are in the coat which are now locked in the trunk of the car.

(Laugther.)

MR. MOODY: So if some guy comes in here in about an hour and hands me a set of car keys there will be one happier person at this meeting because I am going on vacation tomorrow at 5 o'clock if I have a car.

(Laughter.)

MR. MOODY: I will now welcome the staff and

the members from the Nuclear Regulatory Commission and introduce to you who can provide some of the structure of the purpose of the meeting and the format and I would like to introduce Mr. Thomas Novak who is the Assistant Director of Licensing for the Division of Licensing of the Nuclear Regulatory Commission.

Dr. Novak.

MR. NOVAK: Thank you, Mr. Moody.

Good evening, ladies and gentlemen.

My name is Tom Novak. I am with the staff of the Nuclear Regulatory Commission. We don't match you one for one, but I would say this is probably the largest contingent of staff people that I have seen at a meeting such as this. I personally would think that it suggests that we take these meetings very seriously.

As we go through this meeting you will get an opportunity to understand the kinds of things that go into our reviews, the timing and the purpose of this meeting.

I am not going to spend more time than to just introduce the people at this table who are, starting from the left there is Bill Regan. He is the Chief of the Siting Analysis Branch of the staff. To his right is Steve Lewis. He is our lead counsel for the Limerick hearing process. To my right is Harvey Abelson, who is

the Project Manager for the Limeric Station.

I would like now to turn the meeting over to Harvey. He is going to go through very briefly what is contained in the review process and he is going to introduce members of the staff and we are going to try to turn this meeting over as quickly as we can to you so that we can begin to get your comments.

Mr. Moody is going to figure out how many minutes each of you are entitled to. I think there are around 25 people. The staff certainly plans on being here until we have heard everyone and they have what they want to say put on the record.

This meeting is being transcribed. It will go back and, as I understand it, it does become part of the public docket. It isn't testimony, but it is information we will go back and review to understand fully your comments and concerns.

Thank you very much.

Harvey.

MR. ABELSON: Thank you, Tom.

(Slide presentation.)

MR. ABELSON: Can everybody see the slide in the back?

(Members of the audience nod affirmatively.)

MR. ABELSON: What I would like to do is

familiarize you with the NRC environmental review process through taking you through the schedule for the environmental review and discussing each of the major milestones occurring during that review.

To put this into perspective, a construction permit was issued for the Limerick Generating Station, Units 1 and 2 back in 1974. We are now at the operating license stage. Philadelphia Electric Company applied for an operating license back in March of '81.

Now included in this application was a set of documents, four volumes, called the EROL, the Environmental Report Operating License stage. The EROL, as well as other documents associated with the application, have been placed in the local Public Document Room, which for this plant is located right here in Pottstown at the Public Library.

In addition, all correspondence between the NRC staff and the applicant, Philadelphia Electric Company, as well as other related documentation to the application, is also filed in the local Public Document Room for your reference.

What happened after we received this application was the staff performed a preliminary review, which we call an acceptance review, to make certain that the information contained in the EROL was

acceptable so that we would be in a position to do a further detailed review.

We found the application did meet the requirements of the Commission. In areas where information was deficient, we sent out requests for additional information via questions, acceptance review questions. The application therefore was accepted and what we call docketed in July of '81.

That brings us to this week, the environmental site visit. This is an information gathering function and it includes several important activities which take place over a week's period. We started out on Tuesday. The staff toured the site and surrounding areas focusing in on environmental interfaces.

This morning the staff met with the Philadelphia Electric Company to discuss draft questions based on our review of the environmental report to date. This meeting was open to the public, as are all our technical meetings. We had some members of the public attend today.

Also happening this week, the staff plans to meet with several federal agencies and state agencies to get their inputs. Now these agencies would be ones that have jurisdiction over certain environmental impacts associated with the Limerick case or agencies that have

a special expertise in some of the environmental areas of concern here.

Basically, as I said, it is an information gathering session. We are looking for inputs and, of course, this is why we are here tonight. We are looking to receive your comments, your concerns on the environmental impacts of the Limerick Generating Station. We want to take all this information that we gather during this week and factor it into our review. We are in the early stages of the review and in effect the environmental site visit kicks off the detailed review for Limerick.

The next step in the process, as indicated by the fourth milestone, the November 5th milestone, is that we send out a request for additional information to the applicant, Philadelphia Electric, based on information we gather here this week. Philadelphia Electric in turn must respond to our request by mid-December of this year.

Let me say a word on the scope of the environmental review. We are at the operating license stage now and the NRC environmental review is limited to considering only information that is new or changes that have occurred since the construction permit stage. The reason for this is that we don't want to reinvent the

wheel.

There was a review, an environmental review associated with the CP or construction permit stage before construction permits were issued. What we are looking for is changes, new informtion and new developments since then.

Another point, in our view we make use wherever possible of data obtained previously from other federal, state and local agencies that were involved in the construction permit review. However, we do make an independent analysis of this data.

That brings us down to the next major milestone which is the issuance of the draft environmental impact statement due out early May of '83. This document reflects the environmental impacts associated with the Limerick Generating Station that are different from the ones that were already evaluated at the construction permit stage and which we documented in our final environmetal impact statement of 1973. This represents all the information to date of new developments, changes in plant design and what-have-you.

Copies of the draft environmental statement, what we call the DES, are circulated or sent to federal, state and local agencies that again have special expertise in the case or have jurisdiction by law or

have enforcement authority over environmental standards. In addition, copies are sent to all the parties to the Limerick OL, operating license proceeding.

The availability of the draft environmental statement is made known by a notice in the Federal Register as soon as it comes out, and that notice solicits comments from all interested parties. We request that comments be received within 45 days after the Federal Register notice appears.

Getting down to the next major milestone, this is the issuance of the FES, the final environmental statement. Now how does this differ from the draft environmental statement? Well, it factors in the comments received from interested agencies and parties as a result of our solicitation for comments.

The issues associated with all substantive comments are addressed within the final environmental impact statement. In addition, all comments received within that 45-day period are attached to the final environmental statement as appendices.

To take you further down in the review process, we have the ASLB hearing commencing, well, the target date is April '84. ASLB is the Atomic Safety Licensing Board. Now here again let me distinguish

between what we are doing tonight and what that hearing is. This is a public meeting. The is an information gathering session where we are looking for your inputs so that we can factor them into the environmental review process.

You may get the impression that this is a hearing because you see the court reporter up here and this will all be transcribed, but the actual hearings and the proceeding are scheduled to start in April of '84.

Our entire review schedule is geared so that the final milestone in that review, the Commission decision on the issuance of a license, coincides with the applicant's estimate for completion of construction of Unit 1. So we are talking about October '84. All these dates and milestones you see here were developed so that we end up at that point in October '84.

That about describes in general terms the environmental review process.

What I would like to do now is introduce the NRC staff that are here. We have people of various disciplines here.

Let me introduce the first row first, starting from your left.

Al Schwencer, who is the Branch Chief for

Licensing in the Division of Licensing.

Len Soffer, Section Leader in the Siting Analysis Branch.

Brian Richter next. He is an economist looking at socioeconomic impacts. He is attached to the Siting Analysis Branch as well.

Next to Brian is Mike Masnik. He is a senior fishery biologist in Aquatic Resources Section of the Environmental Engineering Branch.

Next to Mike is John Lehr, senior environmental engineer whose area is water quality and also attached to the Aquatic Resources Section of the Environmental Engineering Branch.

Going into the second row we have Tin Mo who is a health physicist. He is attached to the Radiological Assessment Branch.

Next to Tin is Sarbes Acharya who is a radiological analyst with the Accident Evaluation Branch.

Next to Sarbes is Tony Policastro. He is Argon National Laboratory, a consultant on noise.

Next to Tony is Ebe McCabe. He is a Section Leader in the Projects Branch of Region 1 out here in King of Prussia responsible for the Limerick Station.

In the back row we have Elain Chan, staff counsel for the NRC.

Next to Elain, Rex Westcott a hydrologist attached to the Hydrologic and Geotechnical Engineering Branch.

Next to Rex, Ed Pentecost, who is a land use analyst in the Terrestrial Section of the Environmental Engineering Branch.

Last, but not least, Charlie Ferrell who is a siting analyst in the Siting Analysis Branch.

I think everybody over here has been introduced. So me turn the meeting back to Mr. Moody.

Thank you.

MR. MOODY: Thank you, Harvey.

May I suggest for those who came in a little bit late, we do have a sign-up sheet here, and while the first few speakers are speaking if you would care to add your names to the list, why don't end-run around to the right and come up and sign the sheet.

We have 24 people on the sheet as of this minute and working the problem backwards if everybody takes five minutes we will be here for about two hours. So may I suggest that you limit your remarks to about that much time, if you can.

(Audience participants come forword to add their names to the sheet for presentations.)

MR. MOODY: I would like to now call on the

first person on the list, Rita Banning.

Rita is a Commissioner of Montgomery County, a good friend of Pottstown and was the first one signed on the list.

Why don't you give your name and address for the court reporter.

PRESENTATION OF RITA BANNING

MS. BANNING: Rita Banning, 967 Warren Street, Pottstown.

I am a minority Commissioner in Montgomery County. Parenthetically just for your information, maybe you people are all so scientific that you are not interested in the political realities, but I was elected three or four years ago in a very hot race where the question of the water supply for Limerick, Limerick itself and Point Pleasant diversion were very much in issue.

I differed from the other three and I was elected over much opposition, I might say.

(Applause.)

MS. BANNING: So I think the facts do speak for the feeling of a great numer of people in Montgomery County. I am speaking here today because I am concerned that the Philadelphia Electric Company's nuclear facilities at Limerick will damage Montgomery County and

the region environmentally and ruin it economically.

The environmental damage I will speak about is the water supply at the region involving the Point Pleasant pumping station. That project is on shaky financial ground now. I have no doubt that without PE's involvement the water authorities of both counties would meet the needs of the people with a far less grandiose and more economical means of supplying water.

The pumping station, in my opinion, really is PE's project. There has been no environmental impact study yet which addressed the question of how much water will be available to the homes and businesses and industries of central and western portions of this county after years of development dependent on the Delaware River water, that is, development that would be encouraged by this enormous amount to be pumped over from the river when we have gone years with little or no water available.

I would like to say on this subject of the water that I am 53 years old and I have lived in Montgomery County all my life and I have never known a period of 10 or 15 years to go by when we did not have a drought period of two, three years or so routinely come along.

Now before we had quite so many people, quite

so much development, well, it was tough for the farmers, but that was about it. But if we have this great amount of water come in encouraging development beyond what the land can really sustain, what do we do then if there is not sufficient water and you have had this building.

The Point Pleasant pumping station docket with the DRBC shows that the water supply for Central Montgomery County would more than double in normal and wet years, that is, with the use of Delaware River water.

We must know now what backup supply there will be or cound be before this enormous expansion and this induced development has occurred. The use of the Delaware River water by Philadelphia Electric will be largely consumptive.

Thirty-five million gallons a day was the estimate for two nuclear plants. No environmental impact study that I know of, and I don't know what has come in in the last week or so here, but none has measured this consumption against the projected water needs of Montgomery County residents, business and industry.

To put the figure of 35 mgd in perspective, the 1977 Betz Study showed that existing dependable water supply for the country totalled about 175 mgd. How can the NRC permit the Limerick plant and the

pumping station to be built without a study which shows the impact of such enormous consumption, especially in dry years?

If the answer is to say the plant will shut down, that merely leads to my second concern. What will the impact of water shortage be on the cost of running the Limerick plant? PE already has the highest rate in Pennsylvania. Our local industries are already adversely affected by the high cost of electricity. How can we attract new industry with the rates going even higher?

There are other concerns which I won't go into, but which are very real and which I hope you will address, the problem of the storage of nuclear waste, the feasibility of evacuation in such a heavily populated area.

All over the country the cost of nuclear plants has hurt utility companies as well as consumers. Unfortunately, corporate plide seems to be getting in the way of a rational decision about the Limerick plant by PE. Some governmental agencies must balance the environmental and economic costs and make the decision which is the best for the people.

I hope that the NRC will take a broad view and see all the problems this plant is creating. No other

agency has been willing to look at the whole picture. I beg you to do so.

(Applause.)

MR. MOODY: Thank you, Rita.

The second speaker will be Phyllis Zitzer. Again, if you will come forward and give us your name and address for the reporter.

PRESENTATION OF PHYLLIS ZITZER

MS. ZITZER: My name is Phyllis Zitzer. I presently reside at 762 Queen Street in Pottstown. I am President of Limerick Ecology Action.

I want to thank you all for being here today and giving us all an opportunity to give you our concerns before you conduct your environmental reviews of the Limerick plant. However, I really wish that there had been more sufficient notice so that those of us who do take this matter very seriously would have had the time to go to the Pottstown Library to review the environmental report to try to be able to be here, more of us, during the day to listen to some very good questions that were asked today so that we could really participate I think in a much more meaningful fashion.

We really do take this very seriously and again appreciate the opportunity to voice our concerns this evening. However, I know of a lot of people,

because they simply had something like two or three days' notice of this meeting, simply were not able to be here.

Again, I appreciate all of you, and the staff in particular, for taking the time to be here. I just want you to know there are a lot more people that have a lot of things to say that I am sure will get a chance to this evening.

I would like to know if written comments for those people who are not able to be here this evening would be appropriate, and maybe you could suggest at some point this evening some guidance as to who those should be directed to in the time line that those would be appropriate to send in.

We ran an ad in the paper to let people know about this meeting because we were concerned that if you all were taking your time to be here that those people that were concerned about Limerick should certainly make the same efforts to be here to voice their concern. I did receive a number of calls, some of them which I am going to talk about, from people who certainly are concerned and I think would appreciate the opportunity to do that.

LEA is an organization of about 500 people here within the vicinity of the plant that have been

long opposed to Limerick since it was first planned and our primary concern has been the still unresolved water supply issue.

We are very hopeful that this time the NRC will look at the whole water supply system as it is presently being planned for the Limerick facility by the Philadelphia Electric Company and other agencies, and we are hopeful that this review will finally for the first time consider the sources of all the water that would be utilized for Limerick, the upstream storage necessary, if this system is approved, and the impacts that that will have on the entire Delaware River Basin.

From the initial decision to build the plant, this has been something that we have been concerned about and still don't feel as yet that any one agency has considered the whole system and the whole project. Specifically I am referring to the Point Pleasant diversion plan as it has been designed and planned to provide water for the Limerick facility.

I would like to point out to your attention that recently under depositions taken by a party to the formal proceedings in this case, Mr. Vince Borg of the Philadelphia Electric Company did admit that fuel at the Limerick plant could not be loaded without the availability of supplemental cooling water sources for

Limerick, much less the plant be operated commercially.

This is the very issue that we have been raising all along, only to be told that it simply wasn't the case and we are pleased that the company is finally coming forth and giving accurate information, and we do hope that that will be considered fairly by this Commission.

Again, the unresolved question of whether or not the Point Pleasant pumping station is going to be built, whether or not those impacts could be lessened or reduced if that facility were not built at all and whether or not that facility is even necessary for the Limerick plant is something that we want to see considered in your environmental report.

I think we would like you to go further than that and really take a more thorough look at the whole question of the needs for and cost of the Limerick facility.

The Pennsylvania Public Utility Commission recently concluded a very thorough investigation into the economics and need for the Limerick facility and made a recommendation a few months ago that Unit 2 at Limerick should either be cancelled or delayed at least until after the completion of Unit 1. A final order on that investigation should be out very shortly.

We would like you to consider the impacts of whether or not one unit would be more in the public interest, if any are at all, to be completed at Limerick and do hope that your review will consider the possibility that only one unit may be completed at the plant.

One of the things I received a lot of calls about and just want to take a minute to touch upon was concerns of local wells going dry right now because of possible use of well water on the site for construction activities. I went through the environmental report to try and ascertain whether really that is the case. I am not totally sure what the company is withdrawing on site, but I did receive more calls about that than anything else from local residents saying their wells were going dry and they heard that PE was wanting to drill more wells and that sort of thing. I don't have the information, but you do and/or can get that information.

I think that people here in the vicinity of the plant certainly deserve to have their drinking water sources protected and guarded and certainly looked out for.

I have reviewed the information in the environmental report as to whether or not ground water

is being pumped presently for use on the site and it is very confusing to me. In one place, in the external cause section, Section 8.2.2, it I guess refers to station operation and it says in fact that there will be no impact on local water and sewer facilities and that the domestic water supply for the station will be from the river.

In other places, in Section 4.3.2, which is the section that discusses resources committed during construction and specifically water use, it does discuss that initially wells have been used for construction requirements and that it was limited to 100,000 gallons per day averaged over a 30-year period.

However, that goes on and it is not clear whether or not this is still in practice or not. It makes an attempt to say that the water is now being supplied from the river and that the wells are not being used, but it is not clear whether this is present practice or not and, again, it is one thing that I suspect you are going to hear something about from local people and I would ask you to take that into consideration.

The only other thing particularly I think critical to us as far as scope is the issue of the low population zone that was considered for the Limerick

facility in the early days when the Limerick construction permit was granted.

The AEC LPZ methodology that was chosen for the Limerick site I think is certainly outdated at this point and we feel that the 1.7 mile distance from Pottstown to the Limerick facility is also something that must be reconsidered. I think the AEC's criteria for determining what a population center is and whether or not it is appropriate to site a facility such as the Limerick plant within a population center of 25,000 or more, such as Pottstown, is certainly something I am sure you will consider, but it is something that I think goes to the whole heart of our concern about the health and safety of the people here living in the Pottstown area.

I really want to thank you for letting me have a chance to speak.

(Applause.)

MR. MOODY: Thank you, Ms. Zitzer.

Charles Elliott is next, and would you give your name and address.

PRESENTATION OF CHARLES ELLIOTT

MR. ELLIOTT: My name is Charles Elliott. I am from Allentown in Pennsylvania. Along with Judy Dorse of Philadelphia, I am co-counsel for LEA.

I would first like to thank you also for being here and spending time with us and giving us this opportunity to present our views.

I would first like to comment on the rather belated notice to the public about this meeting. The parties to the operating license proceeding received a notice of this meeting dated August 6th and that was a Friday. I didn't receive that notice until Tuesday or Wednesday which was the 10th or the 11th. That gave us about four or five working days to prepare for this meeting.

Now those of us who are somewhat familiar with the ER, and I would just say it is about 1,300 pages of pretty technical material, had a great deal of difficulty preparing what I would consider to be an adequate presentation for this meeting. But our difficulties don't even approach those of the general public who are far less familiar with the ER, and some of whom had even less notice than we did.

That notice I don't believe was adequate and it is does not appear that it was impracticable to give more notice of it, especially in view of the fact that in some cases PE has been given up to 14 days' notice of a technical meeting with the staff.

So I would like to ask the staff to schedule

another meeting with sufficient notice for these people to present their views, and I would consider an adequate notice of perhaps two weeks.

My substantive comments are limited to just two of the areas of the ER which we consider inadequate.

The first area is the accident evaluation section. Now a number of the concerns that we originally had have already been addressed by your Action Evaluation Branch representative in this morning's techincal meeting. I was pleased with that work and I will only touch on some of those.

First of all, PECO's substitution of the probabilistic risk assessment executive summary in place of a detailed accident consequence evaluation is totally inadequate. Even for what that summary covers, it is totally inadequate. It is just as misleading as the WASH-1400 executive summary whose use was condemned by the Commission as a poor description of the contents of the report.

Secondly, the uncritical use of the PRA/CCDF graphs will not be adequate either. There will have to be a generation of additional graphs to cover consequence categories which have been left out of the PRA, for example, genetic effects, thyroid cases and so on. However, we do not believe that the additional

categories which are identified by the staff at this morning's meeting are enough either.

There has been a full site specific crack study and code run down for Limerick with consequence outputs for other consequences than the ones that you have discussed, for example, early radiation injuries, leukemias, contamination of land area and decontamination costs and so on. The values for all of these consequence outputs were calculated as part of the crack code run.

So I would like to specifically request that CCDF's for all of the crack code outputs are generated and made part of the environmental report and the environmental statement. In addition, the CCDF's for all the outputs should include upper or lower bounding lines.

The crack code output contains both mean values and peak values with their associated probabilities. Now those graphs that should be generated should also reflect the existence of both those mean and peak values so that we can see the full calculated extent of the risk and the uncertainties associated with the calculations.

A fuller discussion of uncertainty will also be needed. The interim policy statement for accident

considerations under NEPA requires a discussion of health risks "in a manner that fairly reflects the current state of knowledge regarding such risks." PECO's environmental report has failed to even address the uncertainties in the release fractions, source terms, health and dose models and limitations of present knowledge on these health effects.

The ER also totally fails to discuss radiological impact on biota. It totally fails to discuss the socio-economic effects associated with accident emergency measures. The interim policy statement requires a discussion of both of these aspects and they have not been mentioned in the report and were not mentioned this morning.

So we agree with the staff's opinion, which was expressed this morning, that PECO's discussion of accidents in their ER is not adequate, but we would also expect that including the additional areas which I have mentioned will be required by the staff.

A second major area of inadequacy not addressed by the staff this morning is PECO's failure to properly discuss uranium fuel cycle impacts. PECO's environmental report only reproduced the Commission's S-3 table values. As you are probably aware, the Court of Appeals for the D. C. Circuit has thrown out the

Table S-3 Rule because they considered it invalid. But even aside from that problem, the environmental report makes not one mention of the health effects of the uranium fuel cycle for Limerick.

Now there are generic values available for various fuel cycle health effects and they ought to be included in the environmental report so that they are subject to discussion and review.

I would also note again in that context the necessity for including both the upper bound and lower bound values. The full range of values for fuel cycle health impacts have not appeared in any ER that I am familiar with. However, they have been discussed in full in the adminsitrative record which is already before the Commission on the Ginning Haneker(?) petition for the revocation of fuel cycle licenses.

So we would expect some discussion of full range of health impacts associated with the uranium fuel cycle associated the the Limerick plant.

I thank you again for giving me the chance to speak to you and I appreciate the opportunity.

(Applause.)

MR. MOODY: Thank you, Mr. Elliott.

Tom Winterbottom. Give your name and address, please.

PRESENTATION OF TOM WINTERBOTTOM

MR. WINTERBOTTOM: My name is Tom Winterbottom and I a resident of 110 King Street. That is in the Pottstown area.

I would just like to say that I think this is an amazing thing that the NRC has set here with all these gentlemen. I don't think you guys get paid enough for all of this. I think it is really amazing and I think you guys should earn more than $100,000 a year apiece.

(Laughter.)

That is all I want to say. I think you guys are great.

(Applause.)

MR. MOODY: Alan Stifelman.

PRESENTATION OF ALAN STIFELMAN

MR. STIFELMAN: My name is Alan Stifelman. I am a citizen and fisherman from Alexandria Township, New Jersey. I am also Chairman of the Alexandria Township Environmental Commission.

Tonight I am speaking on my own behalf and on behalf of the Delaware River. Alexandria Township is an agricultural community in Huntingdon County, New Jersey, with one and a half miles of Delaware River shoreline about six miles upstream from Point Pleasant.

We are a community of people used to living with nature. The Delaware River is an important part of our lives. The American shad is our official fish. We believe that the Delaware River is essential to the lives and livelihood of many millions of people, both upstream and downstream from Alexandria.

It is my opinion that water pumped from the Delaware River to be used for supplemental cooling water at Limerick Generating Station will be detrimental to a very serious degree to health of the river and to the river's inhabitants both in and along the water.

I believe that pumping water at Point Pleasant will endanger the American shad, a fish that is in the process of making a come-back. The Point Pleasant pumping station will probably wipe out the progress of the last ten years and millions of dollars spent to improve the Delaware River shad fishery.

I further believe that the resulting reduction of flow will have severe adverse effects on the health of the water in the river and estuary. This in turn will reduce dissolved oxygen levels and the ability of shell fish to survive in the estuary. This will also result in an oxygen deficiency barrier in the estuary preventing the spawning runs of anadromous fish.

Each time we build another impoundment to

divert water, even for flow augmentation, the actual effect is a reduction in average annual flows. The continuing allocation of water resources in amounts whose cumulative quantities are not even known to the Delaware River Basin Commission is a dangerous policy. It is difficult to understand why such a diversion would be permitted when viable alterantives exist.

The NRC would be acting in the public interest by perventing a Rube Goldberg scheme from becoming reality.

Thank you.

(Applause.)

MR. MOODY: Thank you, Mr. Stifelman.

Norman Aamodt.

Before you start, I got my keys.

(Laughter.)

(Applause.)

PRESENTATION OF NORMAN AAMODT.

MR. AAMODT: Let me first introduce myself. I am Norman Aamodt. I am here in three capacities. I recognize some of the names of some of the people who are here. I am a resident of Chester County. We live down near Coatesville. I am running for the State Senate from the district across the river.

My wife and I have been intervenors in the

Three Mile Island restart hearing since it began, and it is from that perspective that I would like to address you.

We heard earlier that our Moderator got his keys. I think what I want to talk about is the key to this proceeding being useful. Earlier we heard someone ask or make the statement that they hoped the NRC would take a broad view.

The reason I came when I was asked tonight to speak was because of our experience at Three Mile Island at the restart hearing, because of the experience we have had with regard to NRC review and because of the freightening aspects of an NRC which does not represent the public but is the handmaiden of the utility. We feel that very keenly and let me give you just one example.

I don't mean this is an indictment of the individuals in the NRC. There are a lot of high quality people in that agency just as there are in the other agencies of the government. But I am taking this from the perspective of Mr. Rogovin in his Rogovin Report that the NRC paid for to learn what they could from the accident. He made the comment that he feared that the truth was not that the NRC was poorly managed, but that it was not managed at all.

When we went through this hearing we litigated one issue that was of great concern to everyone and regard to this proceeding also, and that was the management issue centering on training and testing of operators. When the main hearing ended we presented findings which were completely rejected in every point by the staff, completed rejected in an echoing statement by the licensee and completely rejected in the third hand as a complete echo by the Board itself.

After the reopened hearing that resulted from the cheating of the operators at Three Mile Island, the Special Master who heard that proceeding found point by point as we found in the proceeding earlier. The NRC worked for the industry and not for the public.

The charge that I make is a charge that has been made many times over. I make it very strongly because we have suffered for two years. We have just been to appeals with three issues with one very simple one, emergency planning for farmers, the most abominable plan that I think could have possibly been presented where the NRC staff, the Commonwealth, the licensee and the Board found as a single party. Every time the NRC found as a single party with the licensee and the Board following.

If you gentlemen are to earn the $100,000,

which we would be glad to see you do if you represented us and you can change that.

Thank you.

(Applause.)

MR. MOODY: Thank you, Mr. Aamodt.

Samual W. Morris, a State Representative from District 155.

(Applause.)

PRESENTATION OF STATE REPRESENTATIVE SAMUEL W. MORRIS

MR. MORRIS: As I watched these proceedings begin there were 12 people over there in the box. It made me think I was arguing a case before a jury.

(Laughter.)

MR. MORRIS: But with a group of experts like that, I would hate to argue such a case, and in fact I would certainly take all possible steps to have them discharged from the panel. But I don't think that is what we are involved in here.

I only heard about this hearing, if it is a hearing, late on the work day of Monday. I have had two very busy days, one in Harrisburg. So all I can give you is a very short statement which I would like to elaborate on with a written statement, as I will explain at the end of what I want to say.

The Delaware River Basin Commission, which I

am sure you gentlemen are acquainted with, has been conducting hearings on a proposed plan to I think drastically alter the Delaware River Basin Compact, which was approved by the Supreme Court of the United States a good many years ago, now, and under which the DRBC operates.

I have studied this plan and I had a representative go to the last of these hearings and deliver a critique which she and I worked out together. I do not have the written form of that critique at this point and that is what I would like to submit in due course.

However, it seemed quite clear to us that the proposal of this plan for modifying, and I say the compact itself, although it is not stated to be such, but it seemed to us it was obviously a result of applications by the City of New York for more water in the drought periods. The plan proposed calls for very drastic, and I will repeat drastic reduction in the requirements with regard to the salt incursion in the Delaware in times of drought and I haven't got the figures here for the reasons given.

There is no question in my mind that as a result of all this, including all the additional water supplies discussed in those proposed plans, and that

includes Merril Creek, make it touch and go as to whether New York City could receive the water which they claim they need in drought periods and that the Delaware River from Trenton on down is going to be able to live in the same condition as it is now. The industries along the Delaware River on both sides in Pennsylvania and New Jersey will be adversely affected in a rather extreme way.

I simply cannot see how this Point Pleasant diversion can be made to work under the exigencies which now face the water supplies of Southeast Pennsylvania, and particularly the problems of the Delaware River.

One of the things I have been involved in almost since going into the Pennsylvania Legislature in 1970 have been various concerns regarding the water situation in Southeast Pennsylvania. That is the thing I would like to leave with you gentlemen as being uppermost in my mind. Without the Point Pleasant diversion, I don't see how this plant can exist, and with it I don't see how the Delaware River can exist with at least the populations along each side of the Delaware and the industries on which they depend.

So if you will tell me where I can send written information on this subject after the meeting here, I will be very glad to do so, and thank you very

much for the opportunity to be here.

(Applause.)

MR. MOODY: Thank you, Representative Morris.

This gentleman had to leave early and I am going to call him a little out of sequence.

Marvin Lewis.

PRESENTATION OF MARVIN LEWIS

MR. LEWIS: Thank you very much for the consideration. I have to get to work tonight.

I have a study here. I am not going to read the entire study. However, I have already give you a copy and I will give a copy to the reporter and I wish it to be given the same consideration as if I had read it. I am only reading a one-page statement about the study and I just want to make one disclaimer.

I am not going into the entire ER. There is no way I could here. Everybody would be asleep in a couple of hours. So I am just going into one part of the ER. That does not mean that I believe the rest of the ER is anywhere near acceptable.

These are my comments on the environmental review for the Limerick Nuclear Power Plant.

My first comments concerns the lack of notice and the lateness of the notice for this meeting. I received a notice of the meeting a little before it was

scheduled. I got it two weeks ahead of time only because I was on Karl Abraham's mailing list. Everybody else got it around the 12th. I happened to be an intervenor. I got it in my intervenor mail six days before the 12th, which would have been the 6th, right.

Two, I received notice that there would be this meeting in my intervenor mail only one week ago. Since this is my only chance to inform the staff of my concerns for the ER in a timely fashion, this is a totally inadequate notice schedule.

Three, I am limiting my comments to one aspect of the ER because I was given too short a notice to prepare a full text of all my concerns. The aspect that I shall limit my concerns to is the subsidy that drives the supposed need for another nuclear power plant in the overbuilt PECO service area.

(a) PECO is overbuilt. It has about 47 percent capacity overpeak load in the worst state in the summer. When Limerick comes on line PECO will have about 67 percent over summer peak load. The traditional buffer that Pennsylvania PUC has considered adequate in the past is about 20 percent over summer peak load. This corresponds to the worst state in ten years. Those numbers were gotten out of the PUC hearings, the latest PUC PECO rate case hearings.

(b) However, the way that PECO is trying to expand its sales of electricity to justify this excessive overbuilding is with heat pumps and resistance heating sales using a subsidized rate that shifts the burden to the poor and away from the more affluent customers that use electric heat. A promotional rate is given to those customers with heat pumps or resistance heating. This rate is referred to as "RH". This promotional rate provides customers incentives to put in heat pumps and resistance heating.

From the enclosed study it can be seen that the promotional rate is taken advantage of by affluent and better-to-do finally customers, whereas the regular rate is paid by less affluent customers who wind up actually subsidizing the more affluent.

(c) Therefore, the expansion of the electric sales in the PECO area using promotional RH rates is at the direct expense of the poorer PECO customer and the richer customer gets the benefit.

(d) The EIS did not go into the effects of the expansion of the electric sales on the poorer customers that are subsidizing the promotional rate without getting any benefit from it. This social aspect of the poor paying for the rich without themselves receiving any benefit must be evaluated in the ER.

Without this very important aspect of who pays and who benefits and how these benefits and payments often hurt the EIS and ER are very flawed.

I have one reference along that line which I hope I can find. No, I can't. But anyway, I am talking about the psychological stress decision that says, yes, you do have to look at psychological distress. I think that poor people who are subsidizing the rich through a promotional rate are under a stress which could be termed psychological and, therefore, that area should be looked at in the ER.

(Applause.)

(The document submitted for the record by Mr. Lewis follows:)

July 29,1982

Marvin I. Lewis
6504 Bradford Terr.
Philadelphia, PA 19149

Dear Mr. Lewis,

This study is in response to your request for an investigation into the promotion of Heatpump use by the Philadelphia Electric Company and whether their special rate for electric heat customers (RH) is appropriate. Along with this summary letter are three sets of enclosures. The first is a set of materials that are sent to customers by PECO upon request. They are designated P-1 to P-4. The second is data (D-1 to D-19) used in the calculations. All of the data is from PECO, either from Limerick hearing, rate hearings or from the PUC, except the data on heatpumps and oil burners. The GE Weathertron Heatpump was chosen since it is one of the most widely used units and is typical of heatpumps on the market. Finally, the calculations (C-1 to C-11) are made with the data previously described. Assumptions made are included on the caluclations pages.

In conclusion, I have two recommendations for you to present to PECO and the Public Utility Commission:

1) Elimination of active heatpump promotion. Heatpumps will not save the customer money or save energy as advertised. Thus their promotion is not in the best interest of the PECO customer. Also the literature distributed upon request should be changed to eliminate misleading and false statements.

2) Elimination of RH heating rates and extension of the Over 500 KWH Summer Rate to year round use. The use of Electric Heat drives up fuel costs and thus electric rates even more than the use of air conditioners in the summer. Presently the R customers are subsidizing the RH customers who increase PECO's fuel costs (oil and Purchase power) but receive a rate discount. Elimination of the RH rate would make sure that everyone pays their fair share, instead of having the poor subsidize the rich with electric heat under the present system. Then a year round extra charge for Over 500 KWH/month use encourage conservation and make those heavy users,that force PECO to use more oil and purchace power to meet the extra demand, to pay their fair share. This rate structure is now possible since the PUC has approved a monthly service charge which covers the cost of simply being connected to PECO even if you use no electricity in a given month. For RH customers, this change would be equivalent to the deregulation that oil and gas customers are presently experiencing, and thus eliminate the structure that keeps electric heat costs, like oil and gas, artifically low. This should mean an 70% increase for RH customers (less than the 200% gas customers are experiencing) and a 15% decrease for R customers that have been subsidizing the RH customers over the years.

The following is an examination of PECO Heatpump materials, sent upon request, that I consider misleading or false. From these I conclude that this material should be revised and active promotion of it should be ended.

1) "By absorbing heat from outdoor air, the Heat Pump can provide up to three units of heat for each equivalent unit of electricity required in operation This saves energy." (P-1)

This statement im es that because of a heat pumps high coefficient of performance, the heat pump saves energy. Actually the heat pump efficiency including fuel input to generate the electricity in the PECO system is only 42.5%. This compares to 81% for oil. Thus it is not clear how a heat pump with a low overall efficiency could save energy (calculations from C-4). This statement is only true for consideration of on site operation but would be misleading if the words "on-site" were added.

2) "THE MOST ENERGY-EFFICIENT HEATING SYSTEM COMMERCIALLY AVAILABLE TODAY: THE ELECTRIC HEAT PUMP." (P-3)

As above, from calculations on C-4, we see that the heat pump is not more efficient from the standpoint of use of initial input energy than an on-site fossil fuel heating system. This statement is simply false.

3) "THE MOST ENERGY-EFFICIENT ON-SITE HEATING SYSTEM COMMERCIALLY TODAY" (P-3)

As shown on C-1 and C-2 and thus on C-4, this statement is correct. Unfortunately it appears near the end of pamphlet P-3 after 2) had appeared in bold letters three times earlier. Also this statement can be misleading since it is easily confused with the meaning of statement 2).

4) "Saves energy and money at the same time" (P-1 &P-3)

Again from C-4, heat pumps do not save energy when compared to other heating systems. As far as saving money, from C-3, there is presently a slight advantage in fuel cost in favor of the heat pump due to the reduced RH rate.over oil. Presently gas has the lowest cost of any heating fuel in the Philadelphia, but this could change as gas is deregulated. Electric rates may also rise dramatically if Limerick is completed and its costs go into the rate base. Presently, for new construction, a heat pump can not save money compared to installing gas due to the lower cost of gas. As far as conversion, C-3 shows that when equiptment costs are included in the cost savings of adding a heat pump, the payback period is 27.5 years, just to break even. A payback of this length is generally considered unacceptable, thus making the statement that heat pumps save money incorrect. in the PECO service area.

5) " a system which reduces your overall energy consumption and annual heating bills." (P-3)

This statement uses the word "overall". As already seen from C-4, your overall energy consumption is higher because of the low efficiency in making electricity and transmitting it. It is true that in a conversion from oil to a heat pump (but not for new construction or conversion from gas) will reduce your actual heating bill, but is misleading since it does not lower your overall heating costs when the cost of adding the heatpump is included.

6) "Saves Heating Fuel" (P-1)

This statement implies the savings of heating oil. It can't miss since in a conversion , oil is being replaced by electricity. Overall in the PECO system, it does not save oil (see 8)) or save energy as seen in 4).

7) "Heatpumps save oil"

While not stated specifically in these pamphlet, it is implied in heatpump promotion. See 8) for the problem with this statement.

8) "The electric heat pump powered by electricity generated principally from coal, water power and nuclear energy reduces both your and our nation's dependence on foreign oil for residential space heating."

This statement may be true for many utilities around the country for the following reasons:
a) Most utilities are heavily summer peaking due to heavy use of air conditioners and little use of electric heating. This leads to:
b) low generation costs during winter- coal and nuclear easily meet the low winter demand.
c) unused capacity, even base loaded- this unused capacity could be used for heating thus making the equiptment more profitable on a year round basis.

This statement can not apply to PECO for the following reasons:
a)PECO is only slightly summer peaking- sales for the four summer months are only 2% higher than sales for the four winter months. Thus problems with meeting summer load also exist for winter months. (C-11)
b) PECO is heavily dependent on Purchase Power, 37% of their sales according to D-1. According to PECO in rate hearings, about half of the purchased power is generated with oil. Because of the cost of purchase power, it along with oil are the last options. This special problem for PECO is seen on C-11 where winter heating months contain 3 out of the top 4 highest purchase months. The use of electric heat causes the need for the extra purchase power. Thus the fuel costs per kwh are the highest during these 3 heating months. Thus the use of electric heat drives up winter costs(like air conditioners do in the summer) by causing extra power to be purchased. As more electric heat is added, winter fuel costs will rise even higher as PECO is forced to buy more purchase power to meet the higher demand.

c) Heavy dependence on expensive purchase power means that PECO does not have the luxury of most utilities of having unused coal and nuclear capacity in the winter heating months. Thus promotion of electric heat will not make use of unused low fuel cost options, as with many utilities, but force the use of more oil and purchase power.

d) As explained in b) & c), low fuel cost options are totally committed. Thus in the winter, oil fired generation is heavily used. January, February and March are the 3 highest months for use of urban oil. Even when gas turbine fuel costs are added in (which are primarially used to meet summer daily peaks caused by air conditioners), these three winter months have 3 out of 4 of the highest months total oil costs (C-11). Like purchase power, oil which is expensive is most heavily used in winter months to meet the extra demand caused by electric heat users. Thus electric heat users are causing extra oil to be burned and are driving up generation costs in winter months.

e) Heavy dependence on purchase power and oil to meet winter demand (55% of Jan., Feb. and March sales) causes fuel costs (¢/kwh) to be highest in winter months, 3 out of the top 4 months). Thus electric heat is raising electric fuel costs as much or more in the winter as air conditioners raise summer fuel costs.

f) By adding heat pumps, PECO will be forced to meet the extra demand with oil and purchase power since coal and nuclear are already committed. Thus oil use on C-4 is caluclated assuming half the new heat pump demand will be meet with oil and half with purchase power(which is half oil fired). Thus in the PECO system, heatpumps will consume more oil than oil on-site furnaces and boilers. Heat pumps do not save oil because the statement in P-3 of where heat pump electricity comes from is not correct for the PECO system.

CONCLUSIONS- Heat Pump Pamphlets

1) Heat pumps are not the most efficient heating system available. They do not save energy or money. They are only marginally competitive with oil heat and only then because of the artifically low RH electic rate.

2) Many statements in the PECO heat pump pamphlets are false or misleading. The reader gets the impression that they will save money and energy with a heat pump. They will not.

RECOMMENDATIONS- Heat Pump Pamphlets

1) In the interest of PECO customers, active heatpump and resistance heat promotion should be stopped.

2) If PECO is to retain heat pump literature to be distributed upon request, it should be corrected, eliminating false and misleading statements. The material should project a more accurate view of expected results of heat pump use.

The following is an examination of the points that lead to the conclusion that rate should be restructured to make sure that electric heat customers pay their fair share for the electricity they use.

The PECO system is very different than other utilities because of the points made in 8) of the Heat Pump Pamphlet examination. To review them they are:

a) PECO summer sales only 2% higher than winter sales. Thus most of the problems with meeting summer demand also exist for PECO meeting this high winter demand (C-11).

b) PECO is heavily dependent on purchase power (37% of sales). Purchase power is very expensive and is only a last option. 3 of the top 4 purchase power months are during the winter.

c) PECO's low cost options are fully committed. Thus electric heat does not use coal and nuclear which might be otherwise unused in the winter. The extra heating electric demand must be met with oil and purchase power.

d) The 3 highest month for use of Urban Oil is in the coldest months of the winter. Even adding in gas turbine fuel costs, the winter months have 3 of the top 4 months for total oil costs (C-11). Electric heat causes the extra oil use in the same way that air conditioners cause extra demand and oil use in the summer. Oil generation is expensive thus electric heat is driving up the cost of winter generation.

e) Heavy dependence on oil and purchase power causes winter months to have 3 of the top 4 fuel cost per kwh months. Thus electric heat raises PECO fuel costs as much or more than summer air conditioner use.

f) Additional electric heat customers will make the winter demand higher and cause the need for more oil and purchase power. This will drive winter generation fuel costs even higher.

Examination of these six points together suggests that rate reguarding electric heat users may not be proper. It seems as though electric heat is causing higher generation fuel costs in the winter. But unlike the summer situation where air conditioner users that cause higher costs of generation pay a higher rate for electricity over 500 kwh/month, electric heat users are rewarded with lower rates. Under the present rate structure, RH customers cause higher costs but get a discount for use over 500 kwh. For them to pay their fair share, over 500 kwh/month use should be charged the 9.7¢/kwh summer rate to pay for the extra oil and purchase power use they cause. Thus the R customers are presently paying higher rates than they should be to subsidize the artifically low RH rate.

As more customers add electric heat, dependence on expensive oil and purchase power during winter months will rise and thus winter generation costs will also rise. This will put a further burdon on the R custumer as they subsidize the low rates of the RH customer.

Next an examination of the average RH customer is necessary. Data is supplied from D-2 to D-10 and a composite of 1982 base load RH use is at the bottom of C-10. It is interesting to note that the average monthly base load use of RH customers during the heating season is 1121 kwh/month. The average for R customers is 500 kwh/mo. From the R base load, 500 kwh becomes the base for RH customers where over 500 get the RH discount. As we can see, about 1100 kwh/month should be the division line between the regular and RH rate, reflecting the RH base load use and not the R base use. Thus the R customer not only subsidizes the RH customers low rate for heating but also a discount rate for an extra 621 kwh/RH customer/month of base load. If the RH rate is to continue, the RH customers should be at least paying their fair share for their base load use. Thus the division between R rate and RH heating should be at 1100 kwh/mo. to more accurately reflect the base load use of RH customers. Presently R customer bills are 3% higher(C-10) because of this subsidy to RH customers. If RH customers grow as PECO predicts, by 1990 almost 6% of the R customer bill will go to subsidizing RH base load discounts.

It can also be assumed that since the baseload of the RH customer is over twice as high as that of the R customer, the average RH customer must be more wealthy to have the money to waste twice as much electricity per month. The average R customer not only does not have the money to pay for 1100 kwh/month base load but also does not own a large enough home to consume this much electricity. This puts the RH rate question in a new light if the rich tend to be RH customers and R customers are the poorer residents in the PECO service area. Thus we see that the poor are subsidizing the rich with electric heat. It is easy to see why the poor can't pay their electric bills when they aren't only paying their bill but subsidizing the rich with electric heat and so the rich can waste extra base load electricity at a discount rate. A more fair rate structure where everyone is paying their fair share might give the poor a fighting chance at paying their bills.

CONCLUSIONS- RH Rate Structure

1) Because of special circumstances with PECO, electric heat does not reduce generation cost per kwh but actually increases it because of the extra oil and purchase power needed to meet this added demand. In this way, electric heat is simular to air conditioner use in the summer.

2) Because coal and nuclear is already committed, additional demand from new electric heat customers will have to be met with expensive oil and purchase power, thus driving winter generating fuel costs even higher.

3) RH customers use more base electricity then R customers, over twice as much. Even so the base load-electric heating rate division line is based on R customer use. Thus the average RH customer receives 621 kwh of base power at a discounted rate each month during the heating season. The R customer thus subsidizes this discount.

4) It would seem that the rich tend to be in the RH category and the poor in the R category. Thus the poor are presently subsidizing

RECOMMENDATIONS- Electric Heating Rate Structure

It is important that the rate structures that regulate the cost of electricity be changed so all customers pay their fair share for the electricity. Changing these rates are the equivalent to the deregulation currently going on of gas and oil heat. Like with oil and gas, electric heat has been priced artifically low in the past. Now that oil and gas are being deregulated, it is important that electric heat is also deregulated so each of these fuel can compete on a free market basis and everyone pays their fair share for the energy they are consuming.

The following two step deregulation would make this possible:

1) Elimination of the RH customer category. The RH customer presently receives a discount but should actually receive an extra charge since it is the extra demand for electric heat that raises generation costs.

2) A year round rate of 9.7¢/kwh as presently used in the summer, over 500 kwh. This would accomplish the following with a rate of 9.7¢/month over 500 kwh.

a) Charge electric heat users a fair rate that reflect the cost of generating the electricity they use the way air conditioner users help pay the extra cost associated with the demand meeting costs of their use.

b) Charge electric space heater users for the extra demand meeting problems caused by their use. This is also similar to the extra charge air conditioner customers presently pay.

c) Encourage conservation. Those who are wasting electricity (such as the high base load of RH customers) would be penalized for causing more oil and purchase to be used and thus driving up costs. This type of conservation rate structure is now possible because the monthly service charge now used. This charge will cover the hook up and administrative charges of those who conserve.

These changes would mean an average reduction of $53.87 per R customer per heating season. This amounts to almost 15% of the present bill, thus the amount the R customer is overcharged. According to PECO predictions of RH customer growth, this subsidy of RH customers by R customers would account for almost 29% of the average R bill by 1990. It is clear that the poor will not be able to pay their electric bill if over ¼ of it goes to paying the heating bills of the rich. (C-10)

The bill for electric heating would increase about 70%, far less that the price tripling that gas users will experience by 1985.

If these changes are not make so everyone pays their fair share, my recommendation for a minimum action would be to raise the division between base use and heating use for RH customers from 500 to 1100 kwh/month. This would more accurately reflect the RH base use instead of R customer base used at present. This would reduce the R customer electric bill by 3% during the heating season. If not eliminated, this poor to rich subsidy would grow to almost 6% by 1990 (C-10).

I hope that you are successful in getting some changes in these present PECO policies. The poor sure don't need the extra burdon of subsidizing the bills of the rich.

If I can be of any further service to you please contact me. Also don't hesitate in contacting me if you are not clear about anything in this study.

David H. Kinloch
Mechanical Engineer
1813 Knollwood Rd.
Louisville, KY 40207

HEATPUMP HEATING SEASONAL PERFORMANCE FACTOR (HSPF)

GE Weathertron 3 ton range

From GE Product Data (D-14 to D-17)

Ambassador Model with 14 different air handlers (D-15)

(BTU/watt-hr)	(BTU/BTU)	
6.00	1.76	
6.05	1.77	
6.10	1.79	
5.95	1.74	
6.05	1.77	
6.30	1.85	HIGH 1.85
5.80	1.70	
6.00	1.76	LOW 1.70
6.10	1.79	
6.05	1.77	
6.10	1.79	AVERAGE 1.78
5.90	1.73	
6.05	1.77	
6.30	1.85	

Executive Model with 13 different air handlers (D-17)

(BTU/watt-hr)	(BTU/BTU)	
6.10	1.79	
6.20	1.82	
6.25	1.83	
6.05	1.77	
6.20	1.82	
6.50	1.90	
6.10	1.79	HIGH 1.90
6.25	1.83	
6.20	1.82	LOW 1.77
6.30	1.85	
6.05	1.77	
6.20	1.82	AVERAGE 1.82
6.50	1.90	

WEATHERTRON SUMMARY

HEATING SEASONAL PERFORMANCE FACTOR

HIGH 1.90

LOW 1.70

AVERAGE 1.80

OIL BOILER/BURNER EFFICIENCY

EFM Product Data (D-18 to D-19)

	PK500T	PK750T	K950T	K1200T
Input BTU	138,000	186,000	242,000	304,000
Heating Capacity*	119,000	161,000	210,000	252,000
EFFICIENCY	86.2%	86.6%	86.8%	82.9%

AVERAGE 85.6%

*Note Net Output is not used since it includes distribution losses and radiator efficiencies. Heating Capacity is used since it offers the figures on heat available from the heating unit. This must be used for a comparison since no equivalent Net Output figures are available for heatpumps.

This average efficiency is for a new boiler/burner unit.

I have been informed by an area oil dealer that an older boiler with a burner with a flame retension head can expect a lower efficiency of around 81%. This does not include oil units that have been converted from coal. Thus for calculations, an average efficiency of 81% with be used for oil units.

OLDER BOILER AVERAGE EFFICIENCY 81%

HEATING COSTS

HEATPUMP vs. OIL HEAT

(Efficiencies from C-1 & C-2, Energy costs as of July 1982)

OIL

$$\frac{138{,}000 \text{ BTU}}{\text{Gal. \#2 Oil}} \times \frac{\text{Gal. \#2 Oil}}{\$1.169} \times .81 \text{ efficiency} = 95{,}620 \frac{\text{BTU}}{\$}$$

HEATPUMP

$$\frac{3413 \text{ BTU}}{\text{kwh}} \times \frac{\text{kwh}}{\$.057} \times 1.80 \text{ efficiency} = 107{,}779 \frac{\text{BTU}}{\$}$$

CONVERSION

It is assumed that the comparison is done on a oil unit being converted to a heatpump. Actually a heatpump would be added and the oil be used as backup for temperatures below the heatpump balance point. Thus use figures are taken from D-10. New construction is not considered since this is a cost comparison and due to the low cost of gas, on a cost basis gas would be installed before a heatpump or oil.

HEATPUMP

$$\frac{8100 \text{ kwh}}{\text{heating season}} \times \frac{\$.057}{\text{kwh}} = \$461.70/\text{heating season} + \text{backup heat}$$

OIL (replaced by conversion)

$$\frac{\$461.70}{\text{heating season}} \times \frac{107{,}779 \text{ BTU}}{\$ \text{ (heatpump)}} \times \frac{\$ \text{ (oil)}}{95{,}620 \text{ BTU}} = \frac{\$520.41}{\text{heating season}}$$

SAVINGS (in fuel costs by conversion)

$520.41 - $461.70 = $58.71/heating season

Cost of Heatpump without air handler(assumed to already be with oil unit)

GE Weathertron BWR730	$1147	(from local heatpump dealer)
Installation (est.)	400	
Tax	69	
	$1616	

Assuming electric rates will rise at the rate of inflation, future dollar savings will be equivalent to present dollar savings.

Thus:

Payback excluding finance charges:

$$\frac{\$1616}{\text{heatpump}} \times \frac{\text{year}}{\$58.71} = 27.5 \text{ years Payback}$$

ONSITE EFFICIENCY

OIL (from C-2) 81%

HEATPUMP (from C-1) 180%

OVERALL EFFICIENCY

OIL 81%

HEATPUMP

Since the heating months require extra oil and purchace power electricity (see D-1) and coal and nuclear are already fully committed, it is assumed that the extra electric demand from heatpumps would have to be met with oil and purchase power.
It is assumed that the demand is met with ½ oil and ½ purchase power.
It is assumed that purchase power consists of 50% from oil fired units and 50% from coal and nuclear.

Thus 75% of the electricity for heatpumps extra electric demand is met with oil fired units and 25% is from coal and nuclear units.

((.75 X .25) + (.25 X .30)) X .90 X 1.80 = .425 42.5%

(.75: oil fraction; .25: oil efficiency; .25: coal & nuc fraction; .30: coal & nuc efficiency; .90: transmission losses; 1.80: heatpump efficiency)

OIL USE

OIL HEAT

$$\frac{1 \text{ Gal. \#2 Oil}}{} \times \frac{138{,}000 \text{ BTU}}{\text{Gal. \#2 oil}} \times .81 \text{ (eff.)} = 111{,}780 \text{ BTU}$$

HEATPUMP

$$1 \text{ Gal \#6 Oil} \times \frac{154{,}000 \text{ BTU}}{\text{Gal. \#6 Oil}} \times .25 \times \frac{4}{3} \times .90 \times 1.80 = 83{,}160 \text{ BTU}$$

(.25: oil eff.; 4/3: add coal & nuc; .90: trans. losses; 1.80: heatpump eff.)

$$\frac{111{,}780 \text{ BTU (oil heat)}}{83{,}160 \text{ BTU (heatpump)}} = 1.344$$

Using oil heat, 34.4% more heat can be obtained from each gallon of oil than if a heatpump is used in the PECO system.

RH CUSTOMER SUMMARY

Data from D-11 to D-13

Assumptions
1) All New Construction with heatpumps use electric resistance backu
2) All Conversions use existing fossil fuel system as backup.
3) All units installed before 1970 at electric resistance (note trend on D-13)

Additional units 1970-79 (Adding columns on D-12)

	New Con. HP	Conversion HP	Resistance	Total
1970-79	15,275	756	31372	47,403

Total Units 1979 (from D-13)	74600
Total added units 1970-79	-47403
UNITS BEFORE 1970	27197
Resistance added 1970-79	+31372
TOTAL RESISTANCE IN 1979	58569

	New Con. HP	Conversion HP	Resistance	Total
1979	15,275	756	58,569	74,600
Add. 1979-82	16,590	2880	8,730	28,200
1982	31,865	3,636	67,299	102,800
Add. 1983-90	53,190	17,560	29,730	100,480
1990	85,055	21,196	97,029	203,280*

*Note The Totals from D-12 & D-13 do not correspond exactly.

1982 & 1990 RH Electric Use During Heating Season (October to May)

Data from C-5 and D-2 to D-10

Resistance Heating				Totals 1982	1990	
Average Customer			Customers	67,299	97,029	
Heating (kwh)	11,278					
Base	8,935					
Total	20,213					
Under 500 kwh	-4,000	x $.0846/kwh	= $338.40			
Over 500 kwh	16,213	x $.057/kwh	= 924.14			
	8 Month Service Charge		= 28.00			
	Heating Season Total		= $1290.54			

Base Load =	8935
Under 500 kwh =	-4000
Over 500 kwh in Base =	4935

4935 kwh x ($.0846-.057)/kwh=$136.21 $9.2 million $13.2 mil

All Electricity at $.0846

20213 x $.0846/kwh	= $1710.02	
8 month Service Ch.	= 28.00	
	$1738.02	
Present	-1290.54	
Difference	$ 447.48	$30.1 million $43.4 mill

Over 500 Kwh at $.097

16,213 x $.097/kwh	= $1572.66	
Under 500 kwh/mo.	= 338.40	
8 month Service Ch.	= 28.00	
	$1 39.06	
Present	-1290.54	
Difference	$ 648.52	$43.6 million $62.9 mill

1982 & 1990 RH Electric Use During Heating Season (October to May)

Data from C-5 and D-2 to D-10

Heatpump with Electric Resistance Backup			Totals 1982	1990	
Average Customer		Customers	31,865	85,055	
Heating (kwh)	12,284				
Base	9,453				
Total	21,736				
Under 500 kwh	-4,000	x $.0846/kwh	=$ 338.40		
Over 500 kwh	17,736	x $.057/kwh	= 1010.95		
	8 month Service Charge		= 28.00		
	Heating Season Total		=$1377.35		
Base Load	=	9453			
Under 500 kwh	=	-4000			
Over 500 kwh in Base	=	5453			
5453 kwh x ($.0846-.057)/kwh			=$150.50	$4.8 million	$12.8 milli
All Electricity at $.0846/Kwh					
21,736 x .0846/kwh			= $1838.87		
8 month Service Ch.			= 28.00		
			$1866.87		
Present			-1377.35		
Difference			$ 489.52	$15.6 million	$41.6 milli
Over 500 Kwh at $.097/Kwh					
17,736 x $.097/kwh			= $1720.39		
Under 500 kwh			= 338.40		
8 month Service Ch.			= 28.00		
			$2086.79		
Present			-1377.35		
Difference			$ 709.44	$22.6 million	$60.3 milli

1982 & 1990 RH Electric Use During Heating Season (October to May)

Data from C-5 and D-2 to D-10

Heatpump with Fossil Fuel Backup			Totals 1982	1990
Average Customer		Customers	2,880	21,196
Heating (kwh)	8,100			
Base	5,453			
Total	14,053			
Under 500 kwh	-4,000	x $.0846/kwh	=$338.40	
Over 500 kwh	10,053	x $.057/kwh	= 573.02	
	8 month Service Charge		= 28.00	
	Heating Season Total		=$939.42	

Base Load =	5453
Under 500 kwh =	-4000
Over 500 kwh in Base =	1453

1453 kwh x ($.0846-.057)/kwh=$40.10 $.12 million $.85 million

All Electricity at $.0846/Kwh

14,053 x $.0846/kwh	=$1188.88		
8 month Service Ch.	= 28.00		
	$1216.88		
Present	- 939.42		
Difference	$ 277.46	$.66 million	$5.9 million

Over 500 kwh at $.097/kwh

10,053 x $.097/kwh	=$ 975.14		
Under 500 kwh	= 338.40		
8 month Service Ch.	= 28.00		
	$1341.54		
Present	- 939.42		
Difference	$ 402.12	$1.2 milliom	$8.5 million

Total 1982 & 1990 RH Electric Use During Heating Season (October to May)

Totaling C-6, C-7 & C-8

	1982	1990
OVER 500 KWH USE IN BASE LOAD		
Resistance	$9.2 million	$13.2 mill
Heatpump with Electric Backup	4.8	12.8
Heatpump with Fossil Fuel Backup	.1	.8
TOTAL	$14.1 million	$26.8 mill
ALL ELECTRICITY SOLD AT $.0846/KWH (Difference from present)		
Resistance	$30.1 million	$43.4 mill
Heatpump with Electric Backup	15.6	41.6
Heatpump with Fossil Fuel Backup	.7	5.9
TOTAL	$46.4 million	$90.9 mill
OVER 500 KWH/MONTH SOLD AT $.097/KWH (Difference from present)		
Resistance	$43.6 million	$62.9 mill
Heatpump with Electric Backup	22.6	60.3
Heatpump with Fossil Fuel Backup	1.2	8.5
TOTAL	$67.4 million	$131.7 mill

R CUSTOMER SUBSIDY TO RH CUSTOMERS

	1982	1990
Total No. of R & RH Customers	1,353,982*	1,456,600
Total No. of RH Customers	-102,800	-203,280
Total No. of R Customers	1,251,182	1,253,320

OVER 500 KWH USE IN BASE LOAD OF RH CUSTOMERS

RH Customer Extra Use	$14,100,000	$26,800,000
Subsidy/ R Customer / Heating Season	$11.24	$21.38
Percent higher payment by R Customer **	3.0%	5.8%

ALL ELECTRICITY SOLD AT $.0846/KWH (Difference from present)

RH Customer Difference	$46,400,000	$90,900,000
Subsidy / R Customer / Heating Season	$37.08	$72.50
Precent higher payment by R Customer**	10.1%	19.8%

OVER 500 KWH/MONTH SOLD AT $.097/KWH (Difference from present)

RH Customer Difference	$67,400,000	$131,700,000
Subsidy / R Customer / Heating Season	$53.87	$105.08
Percent higher payment by R Customer**	14.7%	28.7%

*Proportionally between 1979 & 1990 figures from D-13
**Assuming an Average R Customer Monthly Use of 500 Kwh.

EXTRA BASELOAD USE PER RH CUSTOMER 1982

$14,100,000 / 102,800 customers/ 8 months/ (8.46-5.7¢/kwh)= 621 $\frac{\text{kwh extr}}{\text{cust-mor}}$

500kwh + 621 kwh = 1121 kwh/month Baseload for RH customers

MONTHLY RANKING OF PECO ESTIMATED FUEL COSTS FOR 1982

(Data from B-1, Energy Cost Rate Statement No.4 Schedule E-2)

MONTH	Fuel Costs ¢/kwh (14/32)	Ranking	Urban Oil (2)	Gas Turbine (5)	Purch. (13)	Total Oil Costs (2+5)	Ranking
January	3.95	2	3		1	$21,760,708	4
February	4.04	1	1	1	3	31,456,708	1
March	3.60		2			22,607,715	3
April	2.70					13,401,575	
May	3.00					14,768,037	
June	3.66			4		20,046,918	
July	3.42			2		17,457,535	
August	3.94	3	4	3	2	22,795,467	2
September	3.21					16,928,813	
October	3.49					18,867,013	
November	3.82	4			4	18,283,590	
December	2.94					15,123,803	

SUMMER vs. WINTER SALES (from line 32)

Summer Sales (June-September)	9,573,045 MWH
Winter Sales (December-March)	9,386,742 MWH
Difference	186,303 MWH

Percentage Difference - Summer Sales 1.98% Higher than Winter Sales

Philadelphia Electric Company
Energy Costs and Sales
Estimated 1/1/82 through 12/31/82

Line No.	Estimated Basic Data	January	February	March	April	May	June	July	August	September	October	November	December	12 Month Totals
	Fuel Cost - System Generation - ¢						1982							
1.	Fossil Fueled Steam Generation-Urban Coal	4,766,000	3,923,000	4,632,000	4,610,000	7,572,000	7,101,000	4,954,000	6,469,000	6,968,000	4,453,000	5,250,000	6,955,000	69,600,000
2.	" " " " -Urban Oil	19,164,000	24,456,000	20,372,000	12,905,000	15,546,000	17,081,000	11,389,000	10,836,000	15,398,000	17,734,000	16,967,000	14,224,000	202,274,000
3.	" " " " -Gas	0	0	0	284,500	516,700	430,500	357,400	401,600	322,000	0	0	0	2,123,700
4.	" " " " -Mineouth Plants	6,236,000	4,921,000	5,817,000	5,061,000	4,648,000	5,554,000	6,730,000	6,355,000	4,324,000	3,834,000	5,901,000	6,301,000	65,707,000
5.	" " Internal Combustion Generation	7,596,654	6,800,708	1,635,715	496,375	1,222,037	2,965,918	4,748,535	3,859,467	1,530,813	1,133,013	1,316,590	897,503	30,623,424
6.	Sub-Total Fossil Fuel Generation	37,762,654	40,397,708	32,456,715	23,357,875	29,504,737	33,132,418	28,448,935	28,021,067	28,553,813	27,179,013	29,434,590	28,379,503	370,327,338
7.	Nuclear Generation (Excl. Financing Charges)	3,093,428	3,321,407	1,794,981	3,389,749	3,575,817	3,344,538	3,976,971	3,021,447	3,231,695	3,905,195	3,172,759	3,634,323	37,661,310
8.	Total System Generation	34,853,882	41,819,115	34,251,446	27,537,824	33,080,554	35,476,956	32,425,906	31,042,514	31,785,508	31,084,208	32,607,349	32,013,826	401,635,535
	Energy Cost - Purchased and Interchanged													
9.	Firm Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
10.	Interchange Received	58,939,540	53,852,540	46,851,540	30,174,540	28,613,540	47,040,540	49,410,540	57,581,540	49,196,540	47,135,540	50,750,540	39,217,540	559,609,480
11.	Firm Sales (Other than those shown on Ln.30)	0	0	0	0	0	0	0	0	0	0	0	0	0
12.	Interchange Delivered	(340,000)	(455,000)	(245,000)	(274,000)	(391,000)	(1,035,000)	(325,000)	(213,000)	(1,337,000)	([illegible])	(350,000)	(424,000)	([illegible])
13.	Total Energy Costs Purchased and Interchanged	58,599,540	53,397,540	46,606,540	29,900,540	28,222,540	46,005,540	49,710,540	57,368,540	47,859,540	46,698,540	50,400,540	38,793,540	[illegible]
14.	Total Cost of Energy	94,046,422	95,216,655	80,858,236	57,438,363	57,303,194	81,482,496	82,136,446	88,411,054	79,645,048	76,482,748	82,007,889	70,455,366	955,844,215
	Net System Input - MWH													
15.	System Fossil Generation - Urban Coal	247,000	203,000	240,000	345,000	398,000	375,000	356,000	333,000	356,000	225,000	266,000	357,000	3,461,000
16.	" " " - Urban Oil	280,000	380,000	301,000	172,000	181,000	235,000	119,000	230,000	192,000	237,000	213,000	164,000	2,704,000
17.	" " " - Mineouth Plants	349,000	270,000	333,000	284,000	260,000	307,000	371,000	350,000	229,000	214,000	315,000	338,000	3,620,000
18.	" " Internal Combustion Generation	27,067	69,559	16,164	4,639	12,383	27,951	53,977	37,391	16,197	10,683	12,969	8,135	295,112
19.	Sub-Total Fossil Fuel Generation	903,067	922,559	874,164	805,639	851,383	944,951	901,977	950,391	793,197	685,683	805,969	867,135	10,213,112
20.	Nuclear Generation	478,561	344,583	405,087	512,712	600,454	540,737	860,345	691,096	736,096	649,358	664,432	760,335	7,043,536
21.	Pre-Commercial Generation	0	0	0	0	0	0	0	0	0	0	0	0	0
22.	Hydro & Pumped Storage	111,000	136,000	221,000	208,000	161,000	71,000	34,000	8,000	18,000	60,000	108,000	345,000	1,231,000
23.	Total System Generation	1,493,628	1,405,142	1,504,251	1,526,151	1,612,836	1,556,688	1,796,342	1,649,487	1,454,303	1,395,241	1,578,501	1,973,470	18,517,652
24.	Firm Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
25.	Interchange Received and Purchased	1,139,318	953,428	976,518	891,088	673,088	941,048	910,868	1,049,818	947,818	913,948	952,488	757,078	10,907,506
26.	Firm Sales	0	0	0	0	0	0	0	0	0	0	0	0	0
27.	Interchange Delivered	(4,100)	(5,000)	(3,000)	(4,100)	(11,000)	(10,700)	(3,400)	(2,300)	(15,000)	(3,500)	(4,100)	(9,700)	(78,900)
28.	Total Projected System Net Generation	2,628,846	2,353,570	2,479,769	2,312,139	2,274,922	2,487,036	2,693,810	2,695,005	2,387,021	2,305,689	2,374,889	2,520,848	29,351,558
	System Sales - MWH													
29.	Retail (PECO)	2,313,413	2,296,713	2,186,613	2,070,113	1,878,213	2,168,713	2,429,012	2,383,212	2,355,812	2,139,612	2,087,412	2,329,412	26,631,650
30.	Resale (PECO plus Interdepartmental)	59,698	53,897	53,798	47,058	45,999	51,099	57,099	58,699	51,599	51,599	53,599	61,699	646,185
31.	Resale (EE to CP)	9,600	8,300	7,800	6,800	6,300	6,400	7,300	7,600	5,700	7,200	7,800	9,400	94,200
32.	Total Projected Sales	2,382,711	2,358,910	2,248,211	2,124,011	1,930,513	2,226,213	2,493,411	2,449,511	2,413,111	2,198,411	2,148,811	2,400,511	27,371,035

December 1, 1981

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ENERGY COST RATE
STATEMENT NO. 4
Schedule E-2
Sheet 1 of 1

D-1

D-2

COPY #3

PHILADELPHIA ELECTRIC COMPANY

PHILADELPHIA

REPORT 48438-B

1978-79 RESIDENTIAL ELECTRIC HEATING SURVEY OF CUSTOMERS HAVING HEAT PUMPS WITH SUPPLEMENTARY ELECTRIC RESISTANCE HEATING

PHILADELPHIA AND SUBURBAN DIVISIONS

AVERAGE CUSTOMER CHARACTERISTICS

RESEARCH AND TESTING DIVISION
ENGINEERING AND RESEARCH DEPARTMENT

December 31, 1980

TABLE 1
1978-79 RESIDENTIAL ELECTRIC HEATING SURVEY - HEAT PUMP WITH ELECTRIC SUPPLEMENTARY HEAT

AVERAGE CUSTOMER LOAD CHARACTERISTICS

	Annual (a)	Heating Period (a)	Winter Tests Periods (b) Combined Weeks	First Week	Second Week	Cooling Period (a)	Summer Tests Periods (b) Hot Weeks First	Hot Weeks Second	Cool Weeks First	Cool Weeks Second
ENERGY USE PER CUSTOMER, kWh										
Space heating/cooling load	13,538	12,284				1,254				
Test period			745.8	388.4	357.4		107.0	130.0	12.7	12.4
Average weekday			74.6	77.7	71.5		21.4	26.0	2.5	2.5
Base load (c)	13,867	9,453				4,414				
Test period			425.7	206.3	219.4		187.9	175.5	179.2	176.1
Average weekday			42.6	41.3	43.9		37.6	35.2	35.9	35.2
Total residence load	27,405	21,736				5,668				
Test period			1171.5	594.7	576.8		294.9	305.5	191.9	188.5
Average weekday			117.1	118.9	115.4		59.0	61.1	38.4	37.7
MAXIMUM HEATING/COOLING LOAD DEMAND PER CUSTOMER, kW										
Diversified maximum demand (d)										
Test period			5.630	5.630	4.581		1.945	2.983	0.597	0.491
Day			Tuesday	Tuesday	Tuesday		Wednesday	Wednesday	Friday	Tuesday
Half-hour ended			7:30 AM	7:30 AM	6:30 AM		5:30 PM	4:30 PM	5:30 PM	4:30 PM
Average weekday			4.210	4.641	3.737		1.585	1.663	0.226	0.221
Half-hour ended			7:30 AM	7:30 AM	7:30 AM		5:30 PM	4:30 PM	6:30 PM	5:30 PM
Noncoincident maximum demand										
Test period			10.544	10.111	8.369		3.345	4.033	1.733	0.899
MAXIMUM BASE LOAD DEMAND PER CUSTOMER, kW										
Diversified maximum demand (d)										
Test period			3.671	3.213	3.671		2.797	2.456	2.458	2.373
Day			Wednesday	Tuesday	Wednesday		Thursday	Thursday	Wednesday	Tuesday
Half-hour ended			8:00 PM	7:00 PM	8:00 PM		5:00 PM	7:00 PM	9:30 PM	7:30 PM
Average weekday			2.841	2.786	3.055		2.380	2.037	1.887	2.221
Half-hour ended			7:00 PM	8:00 PM	7:00 PM		8:30 PM	8:30 PM	6:30 PM	8:30 PM
Noncoincident maximum demand										
Test period			10.116	8.891	9.388		7.628	7.212	7.599	7.068
MAXIMUM TOTAL LOAD DEMAND PER CUSTOMER, kW										
Diversified maximum demand (d)										
Test period			7.467	7.467	6.642		4.518	3.560	2.521	2.835
Day			Tuesday	Tuesday	Tuesday		Thursday	Wednesday	Wednesday	Tuesday
Half-hour ended			7:30 AM	7:30 AM	9:00 PM		5:00 PM	4:30 PM	9:30 PM	7:30 PM
Average weekday			6.223	6.637	5.841		3.649	3.578	2.113	2.337
Half-hour ended			8:00 AM	8:00 AM	7:30 AM		5:00 PM	8:30 PM	6:30 PM	8:30 PM
Noncoincident maximum demand										
Test period			14.700	14.151	13.080		9.262	9.251	7.835	7.437

a) Obtained from installed test equipment and adjusted to calendar months.
b) Test periods contain only weekdays.
c) Base load is the calculated difference between total residence use and space heating/cooling use.
d) Individual customer method of metering; integrated clock half-hour demand; Eastern Standard Time.

TABLE 1 (Continued)
1978-79 RESIDENTIAL ELECTRIC HEATING SURVEY - HEAT PUMP WITH ELECTRIC SUPPLEMENTARY HEAT

AVERAGE CUSTOMER LOAD CHARACTERISTICS

	Annual (a)	Heating Period (a)	Winter Tests Periods (b) Combined Weeks	Winter Tests Periods (b) First Week	Winter Tests Periods (b) Second Week	Cooling Period (a)	Summer Tests Periods (b) Hot Weeks First	Summer Tests Periods (b) Hot Weeks Second	Summer Tests Periods (b) Cool Weeks First	Summer Tests Periods (b) Cool Weeks Second
LOAD FACTOR, PERCENT										
Heating/cooling load										
Based on diversified demand										
Maximum			55.2	57.5	65.0		45.9	43.6	17.8	21.0
Average weekday maximum demand			73.8	69.7	79.7		56.3	57.5	46.9	46.6
Based on noncoincident maximum demand			29.5	32.0	35.6		26.7	26.9	6.1	11.5
Base load										
Based on diversified demand										
Maximum			48.3	53.5	49.8		56.0	59.6	60.7	57.1
Average weekday demand			62.4	61.7	59.8		65.8	71.8	79.1	66.1
Based on noncoincident maximum demand			17.5	19.3	19.5		20.5	20.3	19.6	20.8
Total load										
Based on diversified demand										
Maximum			65.2	66.2	72.4		54.4	64.0	63.4	55.4
Average weekday maximum demand			78.4	74.7	82.3		67.4	71.2	75.7	67.2
Based on noncoincident maximum demand			33.2	35.0	36.7		25.5	27.5	20.4	21.1
COINCIDENCE FACTOR PERCENT										
Heating/cooling load										
Based on diversified maximum demand			53.4	55.7	54.7		56.1	61.6	34.4	54.6
Based on avg. weekday max. demand			39.9	45.9	44.7		47.4	46.7	13.0	24.6
Base load										
Based on diversified demand			36.3	36.1	39.1		36.7	34.1	36.3	36.4
Based on avg. weekday max. demand			28.1	31.3	32.5		31.2	28.2	24.8	31.4
Total load										
Based on diversified demand			50.9	52.9	50.8		48.8	43.0	32.2	38.1
Based on avg. weekday max. demand			42.3	42.5	44.7		39.4	36.7	27.0	31.4
OUTDOOR TEMPERATURE DATA (c)										
Degree days	5,083	5,003								
Total for the test period			315	162	153					
Per average weekday			31.5	32.4	31.0					
Effective degree hours						8,503				
Total for the test period							885	816	14	65
Per average weekday							177.0	123.2	2.8	13
TEST PERIOD										
From	12-1-78	12-1-78 & 10-1-79	12-11-78	12-11-78	12-18-78	6-1-79	7-23-79	7-30-79	8-11-79	8-13-79
To	11-30-79	3-31-79 & 11-30-79	12-22-78	12-15-78	12-22-78	9-30-79	7-27-79	8-3-79	8-15-79	8-17-79
NUMBER OF CUSTOMERS TESTED			40	40	40		40	40	40	40

(c) Degree days are based on 65° dry bulb temperature and effective cooling hours are based on 75° dry bulb and 65° wet bulb temperature.

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COPY #3

PHILADELPHIA ELECTRIC COMPANY

PHILADELPHIA

REPORT 48440-B

1978-79 RESIDENTIAL ELECTRIC HEATING SURVEY OF CUSTOMERS HAVING RESISTANCE HEATING

AVERAGE CUSTOMER CHACTERISTICS

RESEARCH AND TESTING DIVISION
ENGINEERING AND RESEARCH DEPARTMENT

January 30, 1981

E 1 (Continued)
-80 RESIDENTIAL ELECTRIC HEATING SURVEY - ELECTRIC RESISTANCE HEAT

CUSTOMER LOAD CHARACTERISTICS

	Annual (a)	Heating Season	Winter Tests Periods (b) Combined Weeks	First Week	Second Week	Summer Tests Periods (b) Hot Weeks First	Hot Weeks Second	Cool Weeks First	Cool Weeks Second
D FACTOR, PERCENT									
Heating load									
Based on diversified demand									
Maximum			60.8	57.4	80.5				
Average weekday maximum demand			83.0	75.4	87.5				
Based on noncoincident maximum demand			38.0	35.6	51.1				
Base load									
Based on diversified demand									
Maximum			53.9	57.2	59.9				
Average weekday demand			68.4	69.1	67.9				
Based on noncoincident maximum demand			19.3	20.8	22.6				
Total load									
Based on diversified demand									
Maximum			63.2	63.9	78.6	60.6	59.2	67.5	58.7
Average weekday maximum demand			84.8	78.9	87.8	72.9	72.5	76.9	73.8
Based on noncoincident maximum demand			35.2	33.0	44.9	25.2	26.7	22.4	20.2
COINCIDENCE FACTOR PERCENT									
Heating load									
Based on diversified maximum demand			62.5	61.9	63.4				
Based on avg. weekday max. demand			45.7	47.2	58.4				
Base load									
Based on diversified demand			35.9	36.4	37.6				
Based on avg. weekday max. demand			28.3	30.1	33.2				
Total load									
Based on diversified demand			55.7	51.6	57.1	41.5	45.1	33.2	34.4
Based on avg. weekday max. demand			41.5	41.8	51.1	34.5	36.8	29.2	27.4
OUTDOOR TEMPERATURE DATA (c)									
Degree days									
Total for the test period	5000	4946	308	109	199				
For average weekday			30.8	21.8	39.8				
Effective degree hours									
Total for the test period						855	616	14	65
For average weekday						177.0	123.2	2.8	13.0
TEST PERIOD									
From	2-1-79	2-1-79 & 10-1-79	12-10-79	12-10-79	12-17-79	7-23-79	7-30-79	6-11-79	8-13-79
To	1-31-80	5-31-79 & 1-31-80	12-21-79	12-14-79	12-21-79	7-27-79	8-3-79	6-15-79	8-17-79
NUMBER OF CUSTOMERS TESTED			43	43	43	43	43	43	43

c) Degree days are based on 65° dry bulb temperature and effective cooling hours are based on 75° dry bulb and 65° wet bulb temperature.

TABLE 1
1979–80 RESIDENTIAL ELECTRIC HEATING SURVEY - ELECTRIC RESISTANCE HEAT

AVERAGE CUSTOMER LOAD CHARACTERISTICS

	Annual (a)	Heating Season (a)	Winter Tests Periods (b) Combined Weeks	Winter Tests Periods (b) First Week	Winter Tests Periods (b) Second Week	Summer Tests Periods (b) Hot Weeks First	Summer Tests Periods (b) Hot Weeks Second	Summer Tests Periods (b) Cool Weeks First	Summer Tests Periods (b) Cool Weeks Se
ENERGY USE PER CUSTOMER, kWh									
Space heating load	11,278	11,278	690.7	232.8	457.8				
Test period			69.1	46.6	91.6				
Average weekday									
Base load (c)	13,176	8,935	432.7	192.1	240.6				
Test period			43.3	38.4	48.1				
Average weekday									
Total residence load	24,454	20,213	1123.4	424.9	698.5	209.6	222.8	173.7	157
Test period			112.3	85.0	139.7	41.9	44.6	34.7	31
Average weekday									
MAXIMUM HEATING LOAD DEMAND PER CUSTOMER, kW									
Diversified maximum demand (d)			4.739	3.380	4.739				
Test period			Friday	Friday	Friday				
Day			8:00 AM	8:00 AM	8:00 AM				
Half-hour ended			3.468	2.574	4.362				
Average weekday			8:00 AM	8:00 AM	8:00 AM				
Half-hour ended									
Noncoincident maximum demand			7.582	5.457	7.470				
Test period									
MAXIMUM BASE LOAD DEMAND PER CUSTOMER, kW									
Diversified maximum demand (d)			3.345	2.801	3.345				
Test period			Wednesday	Friday	Wednesday				
Day			6:00 PM	8:30 PM	6:00 PM				
Half-hour ended			2.635	2.318	2.953				
Average weekday			6:00 PM	6:00 PM	6:00 PM				
Half-hour ended									
Noncoincident maximum demand			9.326	7.701	8.888				
Test period									
MAXIMUM TOTAL LOAD DEMAND PER CUSTOMER, kW									
Diversified maximum demand (d)			7.402	5.543	7.402	2.884	3.138	2.[illegible]	
Test period			Tuesday	Friday	Tuesday	Wednesday	Thursday	Monday	
Day			7:30 AM	8:30 PM	7:30 AM	11:30 AM	1:30 PM	5:00 [illegible]	
Half-hour ended			5.523	4.488	6.629	2.395	2.560	1.[illegible]	
Average weekday			7:30 AM	8:00 AM	7:30 AM	5:00 PM	5:30 PM	6:00 [illegible]	
Half-hour ended									
Noncoincident maximum demand			13.298	10.716	12.972	6.914	6.956	6.[illegible]	
Test period									

a) Obtained from installed test equipment and adjusted to calendar months.
b) Test periods contain only weekdays.
c) Base load is the calculated difference between total residence use and space heating/cooling use.
d) Individual customer method of metering; integrated clock half-hour demand; Eastern Standard Time.

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Attachment 1 R 7, C

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COPY #1

PHILADELPHIA ELECTRIC COMPANY

PHILADELPHIA

REPORT 48439-B

1978-79 RESIDENTIAL ELECTRIC HEATING SURVEY OF CUSTOMERS HAVING HEAT PUMPS WITH SUPPLEMENTARY FOSSIL FUEL HEATING

AVERAGE CUSTOMER CHARACTERISTICS

RESEARCH AND TESTING DIVISION

ENGINEERING AND RESEARCH DEPARTMENT

December 31, 1980

(Continued)

RESIDENTIAL ELECTRIC HEATING SURVEY - HEAT PUMP WITH FOSSIL SUPPLEMENTARY HEAT

CUSTOMER LOAD CHARACTERISTICS

	Annual (a)	Heating Period (a)	Winter Tests Periods (b) Combined Weeks	Winter Tests Periods (b) First Week	Winter Tests Periods (b) Second Week	Cooling Period (a)	Summer Tests Periods (b) Hot Weeks First	Summer Tests Periods (b) Hot Weeks Second	Summer Tests Periods (b) Cool Weeks First	Summer Tests Periods (b) Cool Weeks Second
FACTOR, PERCENT										
ting/cooling load										
ased on diversified demand			78.9	76.3	80.9		42.8	45.9	26.0	34.2
Maximum			91.6	90.5	90.9		57.8	61.4	59.6	64.5
Average weekday maximum demand			54.2	54.6	57.2		31.6	34.4	11.6	12.3
ased on noncoincident maximum demand										
load										
ased on diversified demand			54.4	54.8	55.4		54.3	55.6	57.8	58.6
Maximum			63.9	63.9	62.4		68.9	65.6	82.7	73.9
Average weekday demand			20.1	22.9	22.1		19.2	21.2	24.4	20.6
ased on noncoincident maximum demand										
l load										
ased on diversified demand			75.5	79.6	76.6		54.7	56.0	54.5	57.3
Maximum			86.3	87.6	85.0		67.3	66.4	65.1	77.4	
Average weekday maximum demand			42.6	45.6	45.7		30.2	34.5	21.8	22.9
ased on noncoincident maximum demand										
VERSITY FACTOR PERCENT										
ting/cooling load			68.7	71.6	70.7		73.9	74.9	44.6	36.0
ased on diversified maximum demand			53.1	60.4	62.9		54.8	56.9	19.4	19.1
ased on avg. weekday max. demand										
e load			37.0	41.8	39.9		35.4	38.0	33.3	35.2
ased on diversified demand			31.5	35.8	35.4		27.9	32.3	29.4	27.9
ased on avg. weekday max. demand										
al load			56.5	57.3	59.6		55.2	61.6	40.0	35.9
ased on diversified demand			49.4	52.1	53.7		44.9	52.0	33.5	29.6
ased on avg. weekday max. demand										
OF TEMPERATURE DATA (c)										
ree Days	5083	5003								
otal for the test period			315	162	153					
or average weekday			31.5	32.4	31.0					
ooling degree hours						8503				
otal for the test period							855	616	14	65
or average weekday							177.0	123.2	2.8	13.0
PERIOD										
rom	12-1-78	12-1-78 & 10-1-79	12-11-78	12-11-78	12-18-78	6-1-79	7-23-79	7-30-79	6-11-79	8-13-79
o	11-30-79	5-31-79 & 11-30-79	12-22-78	12-15-78	12-22-78	9-30-79	7-27-79	8-3-79	6-15-79	8-17-79
ER OF CUSTOMERS TESTED			43	43	43		43	43	43	43

c) Degree days are based on 65° dry bulb temperature and effective cooling hours are based on 75° dry bulb and 65° wet bulb temperature.

TABLE I

1978-79 RESIDENTIAL ELECTRIC HEATING SURVEY - HEAT PUMP WITH FOSSIL SUPPLEMENTARY HEAT

AVERAGE CUSTOMER LOAD CHARACTERISTICS

	Annual (a)	Heating Period (a)	Winter Tests Periods (b)			Cooling Period (a)	Summer Tests Periods (b)			
			Combined Weeks	First Week	Second Week		Hot Weeks		Cool Weeks	
							First	Second	First	Second
ENERGY USE PER CUSTOMER, kWh										
Space heating/cooling load										
Test period	9,816	8,100				1,746				
Average weekday			597.0	290.8	306.2		138.2	179.3	28.5	24.8
Base load (c)			59.7	58.2	61.2		27.6	35.9	5.7	5.0
Test period	8,991	5,453				3,039				
Average weekday			299.4	151.0	148.5		118.1	122.5	107.9	127.5
Total residence load			29.9	30.2	29.7		23.6	24.5	21.6	25.5
Test period	18,838	14,053				4,784				
Average weekday			896.5	441.8	454.7		256.3	301.9	136.4	152.2
			89.6	88.4	90.9		51.3	60.4	5.2	30.5
MAXIMUM HEATING/COOLING LOAD DEMAND PER CUSTOMER, kW										
Diversified maximum demand (d)										
Test period										
Day										
Half-hour ended			3.155	3.175	3.155		2.692	3.255	0.917	0.605
Average weekday			Wednesday	Thursday	Wednesday		Wednesday	Wednesday	Friday	Tuesday
Half-hour ended			5:30 AM	6:00 AM	5:30 AM		4:30 PM	4:30 PM	6:30 PM	10:30 PM
Noncoincident maximum demand			2.716	2.677	2.806		1.994	2.435	0.399	0.321
Test period			5:00 AM	6:00 AM	4:00 AM		6:00 PM	4:00 PM	6:30 PM	5:30 PM
MAXIMUM BASE LOAD DEMAND PER CUSTOMER, kW			4.594	4.434	4.463		3.642	4.346	2.056	1.691
Diversified maximum demand (d)										
Test period										
Day										
Half-hour ended			2.295	2.295	2.235		1.812	1.835	1.556	1.814
Average weekday			Tuesday	Tuesday	Wednesday		Thursday	Tuesday	Monday	Tuesday
Half-hour ended			6:00 PM	6:00 PM	6:30 PM		8:30 PM	8:30 PM	5:00 PM	6:30 PM
Noncoincident maximum demand			1.953	1.568	1.984		1.429	1.557	1.375	1.439
Test period			6:00 PM	6:00 PM	9:00 PM		8:30 PM	9:30 PM	5:00 PM	8:00 PM
MAXIMUM TOTAL LOAD DEMAND PER CUSTOMER, kW			6.201	5.497	5.599		5.115	4.825	4.669	5.153
Diversified maximum demand (d)										
Test period										
Day										
Half-hour ended			4.945	4.627	4.945		3.902	4.490	2.085	2.211
Average weekday			Wednesday	Thursday	Wednesday		Wednesday	Wednesday	Friday	Tuesday
Half-hour ended			6:00 PM	6:00 PM	6:00 PM		4:30 PM	5:00 PM	5:00 PM	6:30 PM
Noncoincident maximum demand			4.330	4.205	4.456		3.172	3.791	1.746	1.638
Test period			6:00 PM	6:00 PM	9:30 PM		5:00 PM	5:00 PM	5:00 PM	5:30 PM
			8.759	8.075	8.295		7.068	7.294	5.218	5.538

a) Obtained from installed test equipment and adjusted to calendar months.
b) Test periods contain only weekdays.
c) Base load is the calculated difference between total residence use and space heating/cooling use.
d) Individual customer method of metering; Integrated clock half-hour demand; Eastern Standard Time.

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ELECTRIC

1980-90 BUDGET FORECAST

With 1990-2000 Projections

Technical Services Department

February, 1981

PHILADELPHIA ELECTRIC COMPANY SYSTEM

BASE CASE

RESISTANCE AND HEAT PUMP ANNUAL ADDITIONS - RATE RH

NEW CONSTRUCTION & CONVERSION UNITS

Year	NEW CONSTRUCTION RESIST	NEW CONSTRUCTION HT PUMP	NEW CONSTRUCTION TOTAL	CONVERSIONS RESIST	CONVERSIONS HT PUMP	CONVERSIONS TOTAL	TOT RATE RH ADDITIONS RESIST	TOT RATE RH ADDITIONS HT PUMP	TOT RATE RH ADDITIONS TOTAL	EST % RH INST HT PUMP	EST AVE SEASONAL C.O.P. OF ADDS (H.P. TO FURN)
ELDRA											
1978	1480	27	1507	962	0	962	2442	27	2469	1.1	1.7
1979	2362	95	2457	773	0	773	3035	95	3130	3.0	1.7
1980	1732	47	1779	382	6	388	2114	53	2167	2.4	1.7
1981	3852	330	4182	647	11	658	4509	341	4850	7.0	1.7
1982	5123	350	5473	713	11	724	5836	361	6197	5.8	1.7
1983	3325	538	3863	474	5	479	3799	543	4342	12.5	1.7
1984	2491	1274	3705	410	18	428	2041	1292	4133	31.3	1.7
1985	1812	2452	4064	412	102	514	2024	2554	4578	55.8	1.8
1986	1303	3858	5241	518	262	780	1901	4120	6021	68.4	1.9
1987	1930	6304	8234	941	341	1282 *	2871	6645	9516	69.8	1.9
DELCAST											
1980	1650	4980	6630	870	780	1650	2720	5760	8480	67.9	1.9
1981	1970	5500	7470	850	940	1800	2850	6440	9290	69.3	1.9
1982	2230	6110	8350	940	1160	2100	3160	7270	10430	69.7	2.0
1983	2370	6270	8640	1000	1400	2400	3370	7670	11040	69.5	2.0
1984	2570	6640	9210	1060	1640	2700	3630	8280	11910	69.5	2.1
1985	2340	6790	9430	1140	1860	3000	3780	8650	12430	69.6	2.1
1986	2540	6710	9270	1190	2110	3300	3750	8820	12570	70.2	2.2
1987	2260	6780	9410	1220	2380	3600	3850	9160	13010	70.4	2.2
1988	2540	6720	9260	1250	2550	3800	3780	9270	13050	71.0	2.3
1989	2480	6560	9040	1280	2720	4000	3760	9280	13040	71.2	2.3
1990	2510	6720	9230	1300	2900	4200	3810	9620	13430	71.6	2.4

* INCLUDES 300 SPH IN INDIVIDUALLY METERED UNITS

TECHNICAL SERVICES
SEPTEMBER 1980

TABLE R-XXIV

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SUMMARY OF RESIDENTIAL MARKET PROJECTIONS

(UNITS ---)	TOTAL DWELLING UNITS (ALL)	HOUSES (K,KH,KM)	APARTMENTS INDIVIDUALLY METERED (K,KH,KM)	APARTMENTS SINGLE-POINT METERED (GS,PD,HT)	APARTMENTS TOTAL (K,KH,KM)
TOTAL					
DECEMBER 31, 1979	1315500	986500	200000	128900	1186500
NEW CONSTRUCTION 1980-90 INCLUSIVE	158500	109000	45000	3500	155000
DEMOLITIONS AND ABANDONMENTS	17400	6800	2800	7800	9600
DECEMBER 31, 1990	1456500	1088800	243200	124600	1332000
NET INCREASE 1979-90 (11 YEARS)	141100	102300	43200	4500	145400
ELECTRIC HEAT					
DECEMBER 31, 1979	74600	37300	16100	21200	53400
PERCENT PENETRATION 1979	5.7%	3.8%	8.1%	16.4%	4.5%
NEW CONSTRUCTION 1980-90 INCLUSIVE	99100	64100	32000	3000	96100
PERCENT PENETRATION NEW CONSTRUCTION	62.5%	58.8%	69.6%	85.7%	62.0%
CONVERSIONS FROM OTHER FUELS 1980-90	32600	27000	5600	0	32600
DECEMBER 31, 1990	206300	128400	53700	24200	182100
PERCENT PENETRATION 1990	14.2%	11.8%	22.1%	19.4%	13.7%

NOTE: LARGE ARE EXCLUDED FROM ALL FIGURES ON THIS PAGE.

TECHNICAL SERVICES
DECEMBER 1980

D-14

SUBMITTAL DATA

JOB NAME

ARCHITECT

ENGINEER

LOCATION

SUBMITTED BY

APPROVED BY

PERFORMANCE AT SPECIFIED CONDITIONS ①

MODEL (HEAT PUMP) _____
(Insert Complete Model Number)

VOLTS _____ PH. _____ Hz. _____

MATCHED AIR HANDLER _____
(Insert Complete Model Number)

VOLTS _____ PH. _____ Hz. _____

COOLING CAPACITY, Total _____ BTUH

Sensible _____ BTUH

ENTERING AIR (Indoor Evaporator) _____ °F. Dry Bulb

_____ °F. Wet Bulb

LEAVING AIR (Indoor Evaporator) _____ °F. Dry Bulb

_____ °F. Wet Bulb

LOW AMBIENT COOLING _____ °F _____

AIR FLOW _____ CFM@ _____ Inches w.g.

ENTERING AIR (Outdoor Condenser) _____ °F. Dry Bulb

_____ °F. Wet Bulb

HEATING CAPACITY, Total _____ BTUH
(Supplementary Heat Not Included)

ENTERING AIR (Indoor Unit) _____ °F. Dry Bulb

ENTERING AIR (Outdoor Unit) _____ °F. Dry Bulb

SUPPLEMENTARY HEAT CAPACITY _____ BTUH

_____ KW

① Installation to be in accordance with Manufacturer's recommendations.

CERTIFICATION

Dimensions, Specification, and Performance as indicated on this sheet certified correct.

_____
(Company Name)

_____
(Location)

By _____ Date _____

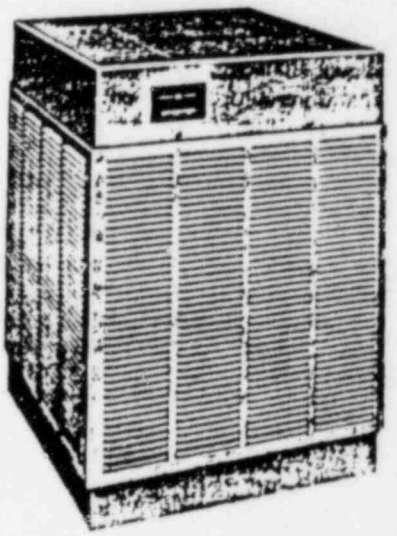
CENTRAL AIR CONDITIONING DEPARTMENT,
TYLER, TEXAS 75711

GENERAL ELECTRIC

PRODUCT DATA

SPLIT SYSTEM WEATHERTRON® HEAT PUMPS

28,000 — 36,800 BTUH NOMINAL CAPACITY AT RATING CONDITIONS



AMBASSADOR MODELS
BWB730, BWB736A-A OUTDOOR UNITS

All equipment described herein is eligible for coverage under the General Electric Central Air Conditioning Service Agreement Program. Contact your local General Electric representative for additional information.

PUB. NO. 22-1115-5
Tab 14 — January 1982

GENERAL ELECTRIC PRODUCT DATA

CENTRAL AIR CONDITIONING DEPARTMENT, TROUP HIGHWAY, TYLER, TEXAS 75711

PRODUCT SPECIFICATIONS

OUTDOOR UNITS

OUTDOOR UNIT	BWB730A100A	
POWER CONNS. — V/Ph/Hz	230/1/60	
Min. Brch. Cir. Ampacity ③	23	
Fuse Size — Max. (Amps)	35	
Fuse Size — Recmd. (Amps)	35	
Sound Rating No. ②	19	
COMPRESSOR	CLIMATUFF™	
No. Used — No. Speeds	1 — 1	
Volts/Ph/Hz	230/1/60	
R.L. Amps — L.R. Amps	15 — 74	
Brch. Cir. Selec. Cur. Amps	17	
OUTDOOR FAN — Type	PROPELLER	
Dia. (in.) — No. Used	18 — 1	
Type Drive — No. Speeds	DIRECT — 1	
CFM @ 0.0 in. w.g. ④	2800	
No Motors — HP	1 — 1/5	
Motor Speed R.P.M.	1155	
Volts/Ph/Hz	230/1/60	
F. L. Amps	1.2	
OUTDOOR COIL — Type	SPINE FIN™	
Rows — F.P.I.	1 — 20	
Face Area (sq. ft.)	12.7	
Tube Size (in.)	3/8	
Refrigerant Control	EXPANSION VALVE	
REFRIGERANT		
Lbs. — R-22 (O.D. Unit) ⑤	6	
Factory Supplied	YES	
Line Size — in. O.D. Gas ⑥	3/4	
Line Size — in. O.D. Liq. ⑥	5/16	
DIMENSIONS		
Outdoor Unit — Crated (in.)	33 X 25 X 25	
Uncrated	SEE OUTLINE DWG.	
WEIGHT		
Shipping (lbs.)	181	
Net (lbs.)	171	

① Rated in accordance with A.R.I. Standard 240.

② Rated in accordance with A.R.I. Standard 270.

SPLIT SYSTEM

③ Calculated in accordance with currently prevailing National Electric Code

④ Standard Air — Dry Coil — Outdoor.

⑤ This value approximate. For more precise value see unit nameplate and service instruction.

⑥ Max. linear length 80 ft.; Max. lift - Suction 60 ft.; Max. lift - Liquid 60 ft. Max. length of precharged tubing 40 ft. For greater length refer to Refrigerant Piping Manual Pub. No. 22-3040.

⑦ Rated in accordance with U.S. Government standard tests. HSPF is the minimum design requirement for Region IV.

OUTDOOR UNIT WITH AIR HANDLERS

	BWH030A	BWH036A	BWH042A	BWH730A	BWH736A	BWH736S	BWU030A	BWV030A
RATINGS (Cooling) ①								
BTUH	29800	31000	31600	29800	31000	32600	28200	29600
Indoor Airflow (CFM)	1000	1125	1125	1000	1125	1125	1000	1000
System Power (KW)	4.12	4.26	4.29	4.12	4.26	4.24	4.06	4.14
S.E.E.R. (Btu/watt-hr.) ⑦	8.15	7.90	8.20	7.60	7.90	8.50	7.35	8.05
RATINGS (Heating) ①								
(High Temp.) BTUH	30000	30600	30600	30000	30600	30600	29600	30200
System Power (KW)	3.36	3.34	3.31	3.36	3.34	3.15	3.41	3.38
COP	2.60	2.70	2.70	2.60	2.70	2.85	2.55	2.60
HSPF (Btu/watt-hr.) ⑦	6.00	6.05	6.10	5.95	6.05	6.30	5.80	6.00

	BWV034F	BWV036A	BWV042A	BWV730A	BWV736A	BWV736S	
RATINGS (Cooling) ①							
BTUH	31800	31000	31800	29600	31000	32600	
Indoor Airflow (CFM)	1125	1125	1125	1000	1125	1125	
System Power (KW)	4.34	4.26	4.28	4.12	4.26	4.24	
S.E.E.R. (Btu/watt-hr.) ⑦	7.90	7.90	8.25	7.60	7.90	8.50	
RATINGS (Heating) ①							
(High Temp.) BTUH	30800	30600	30600	30200	30600	30600	
System Power (KW)	3.31	3.34	3.30	3.37	3.34	3.15	
COP	2.75	2.70	2.70	2.60	2.70	2.85	
HSPF (Btu/watt-hr.) ⑦	6.10	6.05	6.10	5.90	6.05	6.30	

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SUBMITTAL DATA

JOB NAME

ARCHITECT

ENGINEER

LOCATION

SUBMITTED BY

APPROVED BY

PERFORMANCE AT SPECIFIED CONDITIONS ①

MODEL (HEAT PUMP) _____
(Insert Complete Model Number)

VOLTS _____ PH. _____ Hz. _____

MATCHED AIR HANDLER _____
(Insert Complete Model Number)

VOLTS _____ PH. _____ Hz. _____

COOLING CAPACITY, Total _____ BTUH

Sensible _____ BTUH

ENTERING AIR (Indoor Evaporator) _____ °F. Dry Bulb

_____ °F. Wet Bulb

LEAVING AIR (Indoor Evaporator) _____ °F. Dry Bulb

_____ °F. Wet Bulb

LOW AMBIENT COOLING _____ °F. _____

AIR FLOW _____ CFM@ _____ Inches w.g.

ENTERING AIR (Outdoor Condenser) _____ °F. Dry Bulb

_____ °F. Wet Bulb

HEATING CAPACITY, Total _____ BTUH
(Supplementary Heat Not Included)

ENTERING AIR (Indoor Unit) _____ °F. Dry Bulb

ENTERING AIR (Outdoor Unit) _____ °F. Dry Bulb

SUPPLEMENTARY HEAT CAPACITY _____ BTUH

_____ KW

① Installation to be in accordance with Manufacturer's recommendations.

CERTIFICATION

Dimensions, Specification, and Performance as indicated on this sheet certified correct.

_____
(Company Name)

_____
(Location)

By _____ Date _____

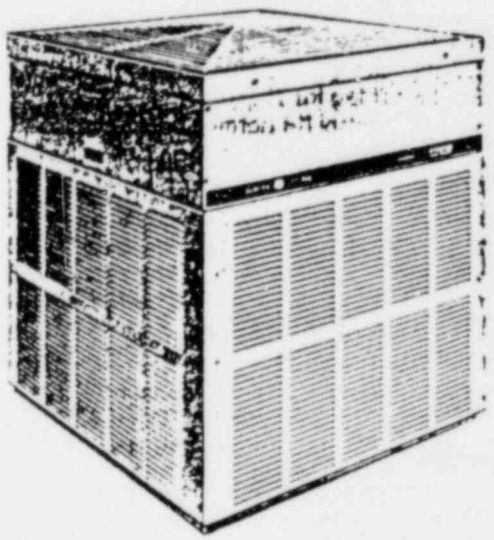
CENTRAL AIR CONDITIONING DEPARTMENT,
TYLER, TEXAS 75711

GENERAL ELECTRIC

PRODUCT DATA

SPLIT SYSTEM WEATHERTRON® HEAT PUMPS

31,000 thru 39,500 BTUH RATED CAPACITY



EXECUTIVE MODELS
BWR730,736A OUTDOOR UNITS

All equipment described herein is eligible for coverage under the General Electric Central Air Conditioning Service Agreement Program. Contact your local General Electric representative for additional information.

Pub. No. 22-1009-8
Tab 15 — January 1982

GENERAL ELECTRIC PRODUCT DATA

CENTRAL AIR CONDITIONING DEPARTMENT, TROUP HIGHWAY, TYLER, TEXAS 75711

PRODUCT SPECIFICATIONS

OUTDOOR UNITS

OUTDOOR UNIT	BWR730A100A	
POWER CONNS. — V/Ph/Hz	230/1/60	
Min. Brch. Cir. Ampacity ③	22	
Fuse Size — Max. (Amps)	30	
Fuse Size — Recmd. (Amps)	30	
Sound Rating No. ②	19	
COMPRESSOR	CLIMATUFF™	
No. Used — No. Speeds	1 — 1	
Volts/Ph/Hz	230/1/60	
R.L. Amps — L.R. Amps	14.8 — 72	
Brch. Cir. Selec. Cur. Amps	16.1	
OUTDOOR FAN — Type	PROPELLER	
Dia. (in.) — No. Used	22 — 1	
Type Drive — No. Speeds	DIRECT — 1	
CFM @ 0.0 in. w.g. ④	3100	
No Motors — HP	1 — 3/16	
Motor Speed R.P.M.	825	
Volts/Ph/Hz	230/1/60	
F.L. Amps — L.R. Amps	1.0 — 2.0	
OUTDOOR COIL — Type	SPINE FIN™	
Rows — F.P.I.	1 — 20	
Face Area (sq. ft.)	16.1	
Tube Size (in.)	1/2	
Refrigerant Control	EXPANSION VALVE	
REFRIGERANT		
Lbs. — R-22 (O.D. Unit) ⑤	11	
Factory Supplied	YES	
Line Size — in. O.D. Gas ⑥	3/4	
Line Size — in. O.D. Liq. ⑥	5/16	
DIMENSIONS		
Outdoor Unit — Crated (in.)	37.25 X 34.5 X 33.5	
Uncrated	SEE OUTLINE DWG.	
WEIGHT		
Shipping (lbs.)	297	
Net (lbs.)	283	

① Rated in accordance with A.R.I. Standard 240.

② Rated in accordance with A.R.I. Standard 270.

SPLIT SYSTEM

③ Calculated in accordance with currently prevailing National Electric Code.

④ Standard Air — Dry Coil — Outdoor

⑤ This value approximate. For more precise value see unit nameplate and service instruction.

⑥ Max. linear length 80 ft.; Max. lift - Suction 50 ft. Max. lift - Liquid 60 ft. Max. length of precharged tubing 40 ft. For greater length refer to Refrigerant Piping Manual Pub. No. 22-3040.

⑦ Rated in accordance with U.S. Government standard tests. HSPF is the minimum design requirement for Region IV.

OUTDOOR UNIT WITH AIR HANDLERS

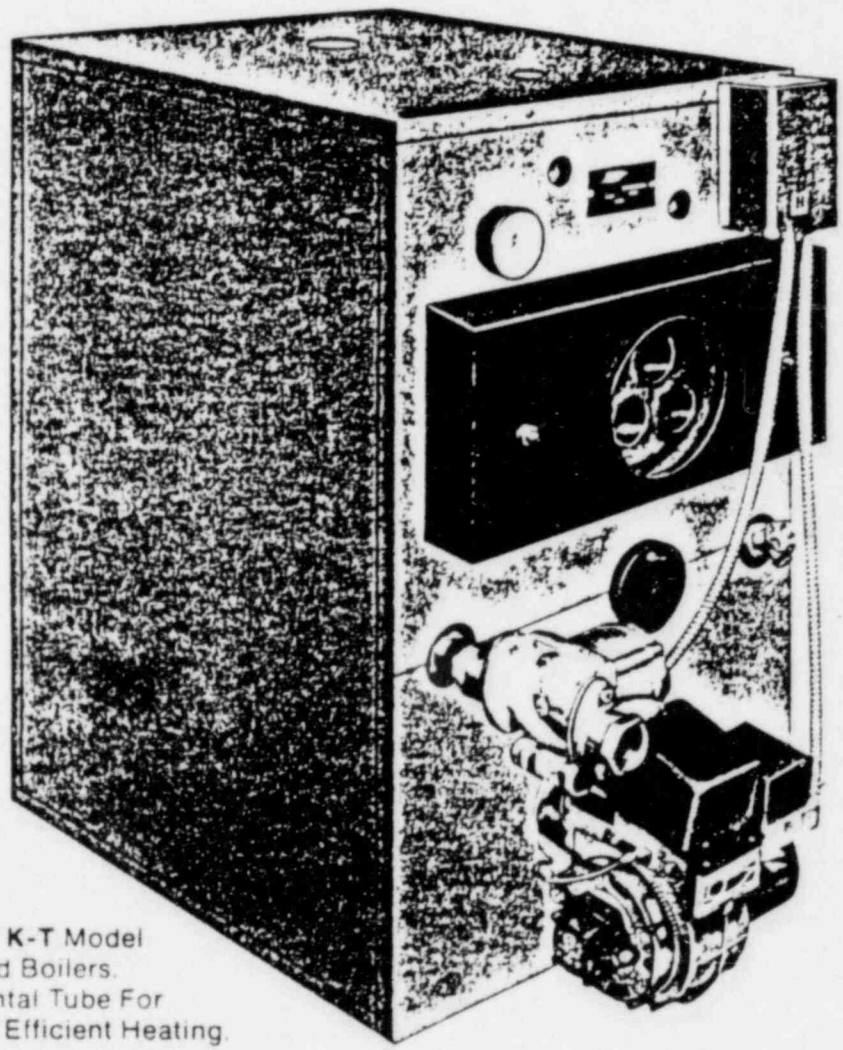
	BWH030A	BWH036A	BWH042A	BWH730A	BWH736A	BWH736S	BWV030A	BWV034F
RATINGS (Cooling) ①								
BTUH	31600	33000	34000	31600	33000	35200	31400	34200
Indoor Airflow (CFM)	1000	1125	1125	1000	1125	1125	1000	1125
System Power (KW)	4.00	4.13	4.17	4.00	4.13	4.11	4.02	4.21
S.E.E.R. (Btu/watt-hr.) ⑦	8.55	8.40	8.75	8.05	8.40	9.15	8.45	8.50
RATINGS (Heating) ①								
(High Temp.) BTUH	32600	33400	33600	32600	33400	33800	32600	33800
System Power (KW)	3.54	3.52	3.50	3.54	3.52	3.34	3.56	3.50
COP	2.70	2.80	2.80	2.70	2.80	3.00	2.70	2.85
HSPF (Btu/watt-hr.) ⑦	6.10	6.20	6.25	6.05	6.20	6.50	6.10	6.25

	BWV036A	BWV042A	BWV730A	BWV736A	BWV736S
RATINGS (Cooling) ①					
BTUH	33000	34200	31400	33000	35000
Indoor Airflow (CFM)	1125	1125	1000	1125	1125
System Power (KW)	4.13	4.16	4.01	4.13	4.11
S.E.E.R. (Btu/watt-hr.) ⑦	8.40	8.80	8.00	8.40	9.10
RATINGS (Heating) ①					
(High Temp.) BTUH	33400	33600	32600	33400	33800
System Power (KW)	3.52	3.49	3.55	3.52	3.34
COP	2.80	2.85	2.70	2.80	2.95
HSPF (Btu/watt-hr.) ⑦	6.20	6.30	6.05	6.20	6.50

D-18

E·F·M New MinimOil Series HOT WATER

Great American Fuel Saver!



PK-T & K-T Model
Oil-fired Boilers.
Horizontal Tube For
Energy Efficient Heating.

e-f-m AUTOMATIC HEAT

THE MARK OF QUALITY

ELECTRIC FURNACE MAN
EMMAUS, PENNSYLVANIA

D-19

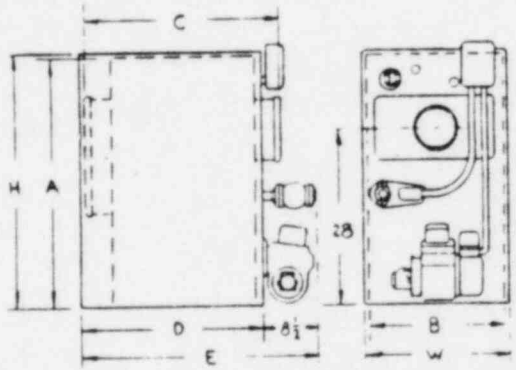
Electric Furnace Man, Emmaus, PA

DIVISION OF GENERAL MACHINE CORPORATION—BOILER BURNER UNITS—FURNACE BURNER UNITS—CONVERSION BURNERS—ELECTRIC HEATING UNITS

SPECIFICATIONS

MODEL	PK500T	PK750T	K950T	K1200T
INPUT BTUH	138000	186000	242000	304000
HEATING CAPACITY BTUH	119000	161000	210000	252000
*NET OUTPUT BTUH	103500	140000	182600	219130
BURNER	AF56XN	AF56YB	AF56XO	AF56XP
NOZZLE SIZE—G.P.H.	1.00	1.35	1.75	2.20
TANKLESS COIL G.P.M.	5	5	7	7
SUPPLY CONNECTION	2	2	2	2
RETURN CONNECTION	(1) 1¼"	(1) 1¼"	(2) 1½"	(2) 1½"
SMOKE OUTLET—DIA.	7	7	8	8
WATER CAPACITY—GALS.	25	24	37	36
RECOMMENDED CHIMNEY SIZE	8×8×15	8×8×15	8×8×15	8×8×20
SHIPPING WEIGHT	670	725	855	885

*Net output ratings are based on installed radiation of sufficient quantity to serve the requirements of the building and nothing need be added for normal piping and pickup. Net rating is based on a piping and pickup allowance of 13%.



DIMENSIONS

MODEL	PK500T	PK750T	K950T	K1200T
H—HEIGHT	40¼	40¼	40¼	40¼
W—WIDTH	23¼	23¼	23¼	23¼
D—DEPTH	29	29	41	41
E—EXTENSION	37½	37½	49½	49½
BARE BOILER				
A—HEIGHT	39¾	39¾	39¾	39¾
B—WIDTH	23	23	23	23
C—DEPTH	29	29	41	41

"PK" Models—Packaged boiler burner units completely wired ready for final installation with flush jacket, domestic hot water coil, circulator, relief valve, theraltimeter, drain cock, draft regulator, M.H. thermostat and M.H. combination aquastat.

"K" Models—Not factory assembled or wired, boiler, burner, flush jacket, domestic hot water coil, relief valve, theraltimeter, M.H. thermostat and M.H. combination aquastat.

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.

AUTHORIZED DEALER

b·f·m AUTOMATIC HEAT

THE MARK OF QUALITY

P-1. Pamphlet entitled,"You can control the comfort of youhome and save energy..." by the Electrical Association of Philadelphia 2877-2 :381

P-2. Pamphlet entitled "This home eonserves energy with a heat pump"by the Electrical Association of Philadelphia. 2877-1:331.

P-3. Pamphlet entitled Customer Guidelines "RESIDENTIAL ELECTRIC HEAT PUMP" bythe Phialdelphia Electric Company

P-4 Pamphlet entitled ,"ENERGY CONSERVATION HINTS" with the name and address of the Philadelphia Electric Co on the back cover.

MR. MOODY: Thank you, Mr. Lewis.

J. William Inslee.

PRESENTATION OF J. WILLIAM INSLEE

MR. INSLEE: I am J. William Inslee of Downingtown, Pennsylvania. I am a Chester County resident.

As everybody should, I do thank you for your attention, and more than your attention which I hope will be given to this whole affair.

I have to agree with many other people that the notice for this meeting was far too short. As a Chester County resident maybe I have missed it, but I am unaware of Chester County advertising. I hope I missed it and I hope that if there should be, and I would call for a future public hearing on environmental concerns by the public, that there would be much broader advertisement and much better notice of time. I heard from a friend. I did not see anything in any public source.

I think another point that is being made repeatedly is that the breadth of the study is the critical affair here in my eyes. I think that there are many aspects of this plant proposition that strike me as absurd. However, they exist as a reality that we are dealing with, and there are many absurdities in the

world.

The biggest one, it strikes me, may be the question of bringing water from a river that is understressed at the moment and is clearly going to be a major water source for residential, to say nothing of other industrial uses, but principally as a fall-back support for what is a major residential use in the future in the whole East Coast area as we know it immediately here.

The current subsidy of Philadelphia Electric's entering into the Point Pleasant project will be propagating a further use of water, a pumped in, centralized water system that I think we are seeing fail in many urban settings now. I would call into question the very logic of this relationship of residential water use in conjunction with the PE use, to say nothing of the consumptive use that is going to be maybe the whole bane of PE's participation.

But down the road, if we have the Limerick Nuclear Power Plant, we will look to its decommissioning. At that point I would suggest that any municipality that engages in water use in partnership with PE should consider its future capital cost to be incurred with no subsidy and later reliance built on a project that currently has no basis.

Now to come to my thanks and my communication of my trust in you and your work. I can do no other, and I think it is critical that we can trust you. I think there is considerable expertise present and I hope it can be as fully utilized as is necessary.

This plant will of necessity involve some environmental impact of just what it means to run a nuclear power plant and there is going to be some periodic emission of radiation. There will be waste. There is a uranium cycle.

What does this mean to us now under current knowledge of the situation? How thoroughly can we be assured that if it operates it is operating well and maybe in the broader question, shouldn't the alternatives have been more thoroughly considered and shouldn't they now be reconsidered and shouldn't a plant that would not be sited here today be heavily examined in regard to simple operating questions? Shouldn't we consider deeply what it means in worse cases and in an incredible variety of worse cases?

Personally it has come back to me in a funny way, having broken my ankle about six weeks ago, just what it might mean to be a handicapped person in a funny situation with a plant that wasn't expected and where I might not have been on any fire company's list of

handicapped people and where I can't drive. It just needs a lot of thought and I hope you give it very deep consideration.

Thank you.

(Applause.)

MR. MOODY: Thank you, Mr. Inslee.

Ann Newbold. Would you give you name and address, please.

PRESENTATION OF ANN NEWBOLD

MS. NEWBOLD: My name is Ann Newbold, and I live at R.D. 1 in Bechtelsville.

My concern dates back from the time of one of the early demonstrations against this nuclear plant when there were so many people at the demonstration that it took us hours and hours to get away from it. The roads were jammed and I thought, my God, what would it be like if there were a nuclear accident and the whole of Pennsylvania was running away. I don't know what the evacuation plans are now, but I certainly hope that have improved since that date. I am sure that whatever they are, that they will not be anywhere near adequate to handle the problems that will arise if there were a serious nuclear accident.

However, I am here not to talk about that. I am a botonist, a plant taxonimist and I am currently

employed as a consultant by the University of Pennsylvania. We are working on the plants of special concern. The University has a contract with the Department of Environmental Resources to determine what are our rare and endangered species of plants in Pennsylvania.

Now I don't want to indicate for a moment that I think plants are more important than people, although I am talking about plants, but the effects of radiation as shown on plants are indicative of what they may be doing to human beings. So there is quite a concern with plants and the effects on plants.

We are developing now this list of the rate and endangered. Pennsylvania is behind most of the states in having their own list. I know that the environmental impact statement when it was made up before could not have concerned itself with those particular plants that were on the list. The list is at the moment, we are studying all the aspects of it and putting the information into the computers so that it will be there.

I would hope that when this information is gathered by our committee on plants of special concern that it will become a part of the concern of the Limerick Power Plant.

The second thing I want to say in this regard is last summer I was employed as a consultant by the Academy of Natural Sciences and we were working on the plots of plants in the area of the Burack EPL nuclear plant. We were studying plots close to the plant and studying plots which were considerably northwest of the plant. We were doing research to find out what the condition of the plants and trees and shrubs were, what they were and then this information was to be used as comparative groups of plots near the plant and plots far away from the plant. So that each year the effects of the radiation on the vegetation would be compared in the two places.

Now I think this project came through Ruth Passick who was the President of the Academy of Natural Sciences and she is also on the Board of the PP&L. I don't think that this is a requirement on every nuclear power plant, but I think it is one which is well worthwhile and one which I would like to see considered in regard to this particular plant so we could have some continuing studies on the radiation, not because I want a job next summer, but because we were considering the matter of radiation and it is deadly serious.

Thank you very much.

(Applause.)

MR. MOODY: Thank you, Ms. Newbold.

We have now had ten speakers. We are a little bit under the five-minute average that we hoped to hit. There are 34 people on the list now, however. So we have some more coming.

William Miller, Jr.

PRESENTATION OF WILLIAM M. MILLER, JR.

MR. MILLER: Thank you, and I will be brief.

My name is William Miller and I live at 59 Kugler Road, in Limerick.

Mr. Chairman, I sat through this morning's question and answer period and there are two issues I would like to raise that were not covered.

As a Limerick tax collector and as a member of the Limerick Planning Commission I am addressing what are grass-roots problems for Limerick. I am close to the people and their problems and I have listened to what is happening down there.

The present work force at the plant approaches 3,000 more or less. A work force that large uses a tremendous amount of water. This combined with the construction for making use for making cement and other uses at the plant has caused the consumption of hugh amounts of water being removed from on site deep wells.

I have heard concerns expressed by people who

live in the general vicinity of the plant that their wells were getting low So my question is what can these people do if they lose their water?

Now another fact that could be concluded from today's qustions and answers was that the nuclear power plants are really anti-people. People cause studies and surveys. People need protection from accidents. People need warning of accidents. People need evacuation after accidents. If you remove the people you solve all of PE's problems.

(Laughter.)

(Applause.)

MR. MILLER: With that premise in mind, I would like to call to your attention Limerick Township's request for sewers. Three times we were able to satisfy the federal EPA requirements for information in meeting minimums. All these times our demise was with PDR, the Pennsylvania Department. The Department of Environmental Resources were always able to come up with a road block. No sewers means no people around Limerick.

My question is obvious. Has PE Company served their own purpose by delaying Limerick's growth? If they have not, perhaps they will show their good faith by underwriting our sewers.

(Laughter.)

(Applause.)

MR. MILLER: When I look at those giant towers, I see a utility with its giant foot on the neck of the whole area, and let me tell you when a giant has his foot on your neck there is no growth.

Thank you, but no thank you.

(Laughter.)

(Applause.)

MR. MOODY: Thank you, Mr. Miller.

John Salamone, Mayor of Royersford.

PRESENTATION OF MAYOR OF ROYERSFORD JOHN SALAMONE

MAYOR SALAMONE: Thank you very much.

The texture of my testimony this evening I think I would describe as one of disillusion and total confusion.

Myself and our constituents in Royersford certainly are not experts in the area of nuclear power, we are not experts in the area of utility law and as time goes on we become even more confused and we have more resounding questions without answers.

In 1979 a number of antinuclear groups did come to our Council Chambers and they endeavored to present us with a petition that was circulating I think across the nation at that particular time dealing with the moratorium on nuclear power.

We chose at that time not to endorse that resolution, and quite honestly we did it for two reasons.

One, we viewed ourselves not just as members of the local area, but also as citizens of the United States and we felt that we were somewhat concerned about energy independence in the United States.

Secondly, we were somewhat advised to the fact that Royersford, whether it be the Mayor or the Borough Council, in the final analysis would have very little to do with the actual decision-making process. We decided in lieu of Three Mile Island and some of the panic in questions that seemed to come to the forefront during that confusing period of time that it would be more appropriate in our roles in our community to wait and see what happens with the industry, what happens with the utility and what happened with those people who were genuinely charged with the authority to make the decisions and thereby not mislead our constituents and pretend that politically we could do things that in actuality we could not.

I must admit that since 1979 we have become a little bit more disillusioned and the questions seem to loom even larger. We were enhanced I think not too long ago when the NRC appeared to us to take a more adamant role in terms of regulation. We were somewhat confused

again when the utility company responded that in lieu of this public safety posture by the NRC that would also affect our utility rates. As everyone knows, the utility rates are of course at the very bottom of a very economically depressed region which you happen to be visiting this evening.

So we were somewhat confused because we were enthusiastic about the government intervention in terms of experts, in terms of proper authority and in terms of having some of these questions answered. Then to have to pay for that, we did feel what I think someone does in a hostage situation. We were concerned about the energy needs of our nation. We were concerned about our government providing regulation and expertise that we did not possess. When those things seemed to come to pass, we seemed to have to sacrifice public safety and additional economic hardship with questions that are not yet answered.

I am a firm believer in doing a great deal of planning and homework. We still have the questions. What kind of evaluation plan is available for this area? Is the water problem really resolved? What happens with nuclear waste disposal? What is the authority? What is the final resolution of transportation of hazardous materials through the

streets of our communities and the highways in these areas.

I have to be honest with you and say that if these questions were answered, we would feel a great deal safer. We do not believe that these questions are answered. We don't purport, and I don't think there is anyone in this room that purports to have all of the answers to these questions.

But gentlemen and ladies, you must please provide us with those answers. We cannot do it. You are our final line of defense and I don't think we have any problems with that. But, please, if the answer to the Limerick Nuclear Plant is no, have the courage to say so because our lives depend upon it.

(Applause.)

MR. MOODY: Thank you, John.

Dennis Paul Elko. Would you please give your name and address.

PRESENTATION OF DENNIS PAUL ELKO

MR. ELKO: My name is Dennis Paul Elko. That is E-l-k-o. My address is 801 Gay Street in Phoenixville.

Now I am angry. Let me say flat out I am angry. I am angry for several reasons. First of all, the short notice. I am angry at myself because I didn't

get involved in this thing sooner and register my protest about this thing going on. So I am angry about that.

I am angry with the NRC because I, like the Mayor, who was marvelously eloquent and very charitable, I expect nothing from the NRC. I was angry because I didn't have a chance to get to my statistics in my files which of course differ from those of the NRC, but then again I think NRC already has those statistics and we all know about government lying with their statistics. You know what I mean? I am going to be honest about that.

You know, if I were a bookie I wouldn't give bets on if that plant is going to have a failure, only when.

(Applause.)

MR. ELKO: Water cooled reactors are not terribly reliable. We know that because the cooling tubes rot out. We know that the gas cooled reactors are more reliable but they are more expensive. We know it is going to go.

Forget evacuation. If you have ever tried to drive down 724 in Phoenixville, Royersford and Coatesville during rush hour at 5 o'clock, forget it. You are not getting out. You are stuck here. Okay.

I am concerned because I live in Phoenixville and Phoenixville draws its water from the Schuylkill River. There will be a leak in that dam. There will be. It is just a matter of time.

Now in TMI after they have a leak they announce four days later, well, we had a leak, but don't worry about it. No radiation was let out. Don't worry about it. It won't hurt you, you know. By then it has gone downstream and our water intake has picked it up.

I have a great affection for this area. I went to high school in Pottstown. I live in Phoenixville and I am the Acting City Manager of Coatesville. Now I am concerned not only from a personal standpoint, but from a professional standpoint, and I would like to make the disclaimer that my viewpoints are my own and not necessarily reflecting those of the City Council.

(Laughter.)

MR. ELKO: But let's look at it from a non-emotional standpoint and look at business for a moment. Let's talk about Lukens Steel which is a major employer in Coatesville. Lukens is a very good company. It is a low-profile company and they are not going to make a statement on nuclear power. What they are doing is petitioning to get off the PE grid to go to

Pennsylvania Power and Light where the rates are much cheaper because they are looking at Economic Survival.

Now this is going to happen with other companies. Now as this happens it is going to fall back on the consumers to pay for something we don't like, we don't need and we don't want. You are putting an enormous amount of people in jeopardy. It is ridiculous.

Like I say, I am just a little angry tonight and I was scribbling notes back there and I don't want to forget anything while I have a chance to say something. We know that nuclear energy is not cheap and it is not safe as it was billed to be year ago. It is no good. It doesn't work. It doesn't work well, if it works at all.

I mean I am not going to go into all the stories about the employees that flush a toilet and the water pressure drops and it kicks a valve and the whole reactor shuts down. But you guys know about those, or when they are testing for leaks in a pipe with a candle and set fire to all the controls, or when they spilled Pepsi into the control panels and things short out and give lousy readings. I am not going to talk about that.

(Laughter.)

MR. ELKO: Now from a personal level let me

swing back again because I have got the mike here and I want to take advantage of it. I am hoping that LEA does some statistics on birthrates around here right now. I am concerned about stillborn and birth defects in this area. I would like a survey done now by somebody reputable, and not the NRC, but a concern like the LEA, somebody to do that.

Then after Unit 1 comes on line, because I know it is going to come on line sometime, and of course if it doesn't come on line I am buying drinks for everybody, but I am pretty sure it is going to come on line and there will be a change because things like that happen. If you look at TMI, you know, you figure maybe the women were hysterical and they miscarried or something, you know, or maybe they are watching the news and they got upset, you know, but these sheep and the animals up there don't watch the news. Everybody knows they just watch the soaps.

(Laughter.)

MR. ELKO: So, I mean, you can't argue with those kinds of statistics.

I think really two closing comments and two thoughts. I don't think the NRC is interested too much in the facts and statistics they are going to get out of these meetings because the NRC has very good people.

The government has very good technicians, you know. I mean despite the fact that if you take any group of laboratories that make an analysis, and I know this from my experience, whether it be chemical waste or radioactive waste, you don't get a broad level of readings. You get readings that go up like this simply because if you have got a hundred different laboratories to do a hundred different tests you get a hundred different readings, none of which would be the same. It is like the story about if you took at the economists in the world and laid them end to end, they couldn't reach a conclusion. It just doesn't work.

(Laughter.)

MR. ELKO: What I think the NRC is here for really is to see what kind of reaction you are going to get when something goes wrong, down the pipe. As I say, most people don't react until they are faced with an accident, with a problem, like the FAA doesn't react until there is a plane crash and they say we will look into it. I would like to stop something before it happens.

Since I don't think people are going to react until something does happen, because a lot of people aren't activists, and when something does happen there is not going to be a room large enough anywhere in the

vicinity to hold all these people, you see.

Now I am of the persuasion, and I am a reasonable man and I will listen and if you have got a problem I will sit down and talk about it, but if this goes on line, and with my friends and family in the area, if any of them are hurt or injured, I personally am going to be looking for somebody's hide to nail to a wall, and I know some of my friends that also will become very active at the time and we will also be collectively looking for somebody's hide to nail to a wall.

I just will say in closing that if I had the throw-weight of the NRC behind me, the Limerick plant would be a parking lot in 72 hours.

Thank you very much.

(Applause.)

MR. MOODY: James McKnight.

PRESENTATION OF JAMES McKNIGHT

MR. McKNIGHT: My name is James McKnight. My address is Box 400, Route 309, Coopersburg, Pennsylvania, 18036.

I am here tonight speaking for the sportsmen of Pennsylvania and particularly of Bucks County of which I am a resident. I am Vice President of Pennsylvania Federation of Sportsmen's Clubs which is

the largest nonprofit conservation organization in the State with 135,000 paying members.

We are particularly concerned over the water aspect of this project. There are two phases, as you know. One is the water supply for Bucks and Montgomery Counties, and I am not sure whether we are addressing that tonight because you are speaking specifically of the Limerick plant. But it does affect the whole operation because the two are tied together.

The 95 million gallons per day which is the total of the pumping estimated need at peak operation is to be divided into two parts. Limerick is to receive 46 million gallons per day. Of that 46 million, 33 million is to be the peak need for the operation of the plant, as I understand, if both reactors are in service. That means that you have the difference between 46 and 33 million gallons per day which is not going to be used for anything except for the flow of the stream.

Now, the question is the environmental impact study has never been completed on the two streams that will be involved in this pumping project, namely, the Perkiomen and the Neshaminy. The discharge of the pumps from Point Pleasant enter these streams at the very head waters. In the summertime, this time of the year, there is no water in the streams at either one of those sites.

but this is the time of the year that the water will be needed for Limerick. So you are going to discharge from those pumps 46 million gallons per day into that stream, and from the other one will be 49 million to go into the Neshaminy for that water supply there.

Now they have never completed the impact study on this stream. Another question that comes up is they are doing something here that they have not done in a major project any place in the Commonwealth of Pennsylvania, and that is to allow this water to run free flow on that stream. The Perkiomen is approximately 27 miles. The Neshaminy is about seven miles.

Again, we have not had a complete environmental impact statement on this portion of the operation. In the Neshaminy you need 40 million gallons a day to augment the water supply in the Neshaminy Creek basin. Of that the 9 million gallons will not be used for water supply. Part of it will be to augment the flow of the Neshaminy Creek. The problem with the Neshaminy Creek is that we have too many sewer plants that are overloaded or up to capacity and the stream cannot be properly flushed. So they are telling you that we are going to add this much water to the Neshaminy Creek so we can improve the trout fishing.

That is a bunch of malarkey.

Now this same water then flows into the Delaware River and that water then goes to Philadelphia. That is where Philadelphia gets their water supply.

Now let's get back to the nuclear station at Limerick. The needs there, as I understand it, is for the two stations. There is a question now whether the both will be in operation. The water needed for Limerick would normally be supply from the Schuylkill River until the flow reaches a minimum flow or a temperature control. Then it will be pulled from the Delaware. When it is pulled from the Delaware you have the same condition in the Delaware as you have in the Schuylkill.

The original plans called for all the cooling water to come from the Schuylkill River. I question you. If the Limerick Station is to have one cooling tower and one power station in operation, do we need that water other than what is in the Schuylkill river, because the original plan called for storage basins in the Schuylkill River basin. That would have been great because that would have increased the flow daily of the water in the Schuylkill River and would improve the conditions of that stream. But now we are going to pump

it from the Delaware over to the Schuylkill River.

Let's get back to the fish. In the Delaware River we have one of the finest shad runs in the nation. It is dependent on the flow of the water in the Delaware for those fish to migrate and to propagate in that stream. The fact is that the flow in the Delaware River is controlled basically by the State of New York. They are required to maintain a specific flow in the Delaware River Basin.

We are talking about the only river in the eastern part of the country that has no major dams on it. We are talking about a stream now that supports a fine shad reproduction every year. We don't want to lose it. We fought a long time to get it the way it is. It has only been within the last 15 years that we have had this condition. The Schuylkill River flows into the Delaware in Philadelphia. Right now we are trying to establish a shad run in the Schuylkill. We have them going back up the stream and we hope to continue to maintain that.

We don't feel that this Limerick project is conducive to good environmental planning for the Commonwealth of Pennsylvania.

Thank you.

(The material submitted by Mr. McKnight for the record follows:)

FEDERATION OF SPORTSMEN'S CLUBS
of BUCKS COUNTY PENNSYLVANIA

March 9, 1982

FREE PRESS
312 West Broad Street
Quakertown, PA 18951
ATTENTION: Mr. Andrews-Editor

Dear Mr. Andrews:

Your headline, "Warren: Water Project Near" contains some inaccuracies which both Andrew Warren and Elaine Zettick have been stating as fact since their election to office.

1. There is a lot more than one permit to be issued on this project as yet.

2. The water supply for Montgomery and Bucks counties, which is to be 40 Million Gallons Per Day, (MGD) will be used for domestic and commercial purposes. 3 MGD will be used to flush the treated sewage down the Neshaminy Creek to the Delaware River.

3. The Northern spur will carry water thru Souderton, Sellersville, Telford, up to Quakertown! Does Quakertown need additional water and will all property owners be required to hook up to this system?

4. Will 46 MGD overload the sewage plants now in operation? The primary purpose of N.W.R.A. is to sell water to the new industry and home development projects in the farm lands and undeveloped sections of Upper Bucks and Montgomery counties.

5. The water for P.E. Limerick Plant will come from the Delaware River via the Perkiomen Creek and the Schuylkill River, and this, only if the Merrill Creek reservoir is built in New Jersey.

6. Mr. Warren infers that 3 impact studies have been completed. He knows there never has been an E.I.S. on the Perkiomen and the Neshaminy Creeks.

7. The alternate solutions are development of the water storage areas in the Schuylkill River Basin; Construction of the Evansburg Reservoir in Montgomery County; (the land was purchased in the early '70's and is laying unused) Purchase additional water from Philadelphia as they are doing now; Use the water from Lake Nockamixon.

FEDERATION OF SPORTSMEN'S CLUBS
of BUCKS COUNTY PENNSYLVANIA

March 9, 1982

Mr. Warren does not mention the fact that the Point Pleasant Project can drastically effect the Delaware River estuary which supplies water, directly or indirectly, for 7 million people in the Delaware Basin. There is one of the finest shad fisheries in the eastern United States, which will be in jeopardy under the present plans.

Mr. Warren has a responsibility to tell the full story on this project even though his political commitment over the past years has been "Build The Point Pleasant Diversion Come Hell Or High Water"!

Sincerely,

James McKnight

JMK/jmq

CONSERVATION PLEDGE

I give my pledge as an American to save and faithfully to defend
from waste the natural resources of my country —
its soil and minerals, its forests, air, waters and wildlife.

COMMENTS ON
THE POINT PLEASANT/NORTH BRANCH WATER TREATMENT PLANT
ENVIRONMENTAL IMPACT ASSESSMENT

a Statement by James McKnight, First Vice President
Pennsylvania Federation of Sportsmen's Clubs

before the district office of the U.S. Army Corps of Engineers

Thank you for this opportunity to comment on the Point Pleasant diversion.

I will preface my remarks by briefly describing the Pennsylvania Federation of Sportsmen's Clubs. The Federation is the official state affiliate of the National Wildlife Federation the World's largest private conservation organization. In addition, the Pennsylvania Federation of Sportsmen's Clubs is Pennsylvania's largest conservation organization with well over two hundred thousand dues-paying members.

This testimony I'm about to present is also endorsed by the National Wildlife Federation.

The Federation has reviewed the proposal submitted by the Neshaminy Water Resource Authority for the purpose constructing a water intake structure in the Delaware River some distance (not clearly identified) downstream of the junction of Tocnickon Creek near Point Pleasant, Bucks County, Pennsylvania.

We, the Pennsylvania Federation of Sportsmen's Clubs are unalterably opposed to the diversion as currently proposed for the following reasons:

(1) The diversion places a substantial additional drain on an already over-allocated river basin. We firmly believe last year's drought pointed to the folly of making more people dependent upon a river that is already supplying water to nearly ten percent of the Nation's population. If approved, an additional 49 million gallons will ultimately be taken and about 44 million will return as treated sewage for downstream use. Additional dependency can only exaserbate an already serious problem.

(2) The diversion will allow and infact, will implicitly encourage twenty percent more growth in the Bucks/Montgomery County area over the next two decades. This is a serious and unaddressed issue. Do the people of these counties want this growth? What will happen to the remaining prime agricultural land in these counties? Will the air resource sustain this expansion? The real Question is how much growth in a region is enough? Should diminishing and polluted ground and surface water supplies be an indicator of a natural growth limitation? Should every square foot of land be covered with concrete, steel and shingles?

I for one, find little solace in contemplating a future where every niche is subdued for factories, shopping centers and homes. An overcrowded landscape is not very condusive for the satisfying of my needs for solitude, natural beauty or for the wildlife I have enjoyed throughout life.

(3) The diversion will allow the ninety-eight toxic pollutants found in the lower Delaware (identified in a MIT study 1979) to become more concentrated and therefore when flow falls below Q7-10, to exceed safe levels. What steps are being taken to protect Philadelphia and other down stream users against these toxic pollutants found in higher concentrations as a result of Point Pleasant Withdrawals? What steps are being taken to protect Neshaminy water users?

(4) PECO is not required to construct the proposed Mirrill Creek and other needed reservoirs prior to getting the use of Delaware water. The BCM report indicates: "PECO and other members of a consortuim of utilities are planning to construct..." Where's the firm commitment! Without adequate makeup water, people will be faced with the untenable position of having to chose between cooling a reactor or having drinking water.

(5) Information on the actual planned operation of the system is woefully inadequate. A much more detailed and up-to-date model should be developed to assess the operation of the Point Pleasant system as it will interface with the Delaware River. The model should simulate impact on the lower Delaware and its estuary at various river flow/withdrawal rates. This of course, is very critical for determining impacts during drought emergencies. The model would also tell us how much upstream capacity should be required of PECO prior to approval for withdrawal permit.

(6) We believe the issue of impingement and entrainment is inadequately addressed. Losses should be prevented if possible. Mitigation measures should be required for all fish losses. In addition, perhaps as an expression of its sense of public responsibility PECO should play a greater role in the various Shad restoration efforts in the Commonwealth including providing passageways at its dam.

(7) We concur with the U. S. Fish and Wildlife Service's concerns regarding the impact upon the Delaware Estuary Resource and are particularly concerned with the cumulative effect of all the out-of-basin transfers and consumptive losses within the basin. We strongly believe the Point Pleasant Project will have a severe impact on the lower Delaware and Delaware Estuary. Even the DRBC admits that during drought emergencies, "the dissolved oxygen criterion may be violated for short periods of time in the public interest." What is being said in a bureaucratic way is there are going to be massive fish kills during droughts. (fish can not live without oxygen even for "short periods of time in the public interest.") The Fish and Wildlife Service warns:

"additional loss of 150 cfs could cause DO to drop below survival le vels of fish and other aquatic organisms in parts of the Delaware estuary."

Because of the magnitude and importance of the above concerns, we recommend that issuance of the requested permit be denied at this time.

The Army Corps of Engineers has been entrusted with important responsibilities for protecting our environmental future. With that power goes a need for cautious, responsible leadership.

We have before us a major and yes, a critical resource decision. Shouldn't we resolve all outstanding problems before moving ahead.

Thank you.

LJS/cls

AROUND THE STATE

POINT PLEASANT--MORE THAN A DIVERSION

Water is becoming an increasingly valuable resource. Like gold, it's future value can only increase. There will never be more water on this planet; there is as much today as there was when the pilgrims set foot on Plymouth Rock. It is becoming more uncommon to find this very common element in a pure state. Yet our needs for pure water may well exceed the supply.

Jim McKnight looks at a particular troublesome area this month, considering water diversion from the Delaware River at Point Pleasant, Bucks County.

What is the Delaware River Basin? How is it different than the other river basin in the nation?

The Delaware River Basin is the 33rd largest river in the United States, supplying water for portions of Pennsylvania, New Jersey, Delaware and New York. Fifty-percent of the drainage lies in Pennsylvania, twenty-five percent drains portions of New Jersey, less than twenty-percent is in New York, the remainder is in Delaware.

Waters from the Delaware River are extremely important in maintaining the economy in the area through which it flows.

Seven million people live in the Delaware River Basin. The Camden-Philadelphia area is the largest freshwater port in the world. The economic base of the area lies in the lower regions of the Delaware River Basin.

There are three major differences in the Delaware River Basin in comparison to the other watersheds throughout the United States:

(1.) The relative smallness of its drainage area; (2.) The enormity of the demands placed upon it, and; (3.) Use of the estuary as a source of potable water supply.

For instance, envision an area relief map of the United States with the whole central area between the Rocky and the Applachian Mountains as one vast drainage estuary basin known as the Mississippi River Basin. Check the same map and find the Delaware River Basin. This will immediately show the smallness of the Delaware River Basin as compared to other major river basins.

The demands on the Delaware River Basin are tremendous. Not only must it supply water for the nation's fourth largest metropolitan area, which consists of the Camden-Philadelphia, but it also supplies half of the water for the greater New York City are the largest suburb in the nation. The ironic fact is that New York City has virtually untapped the larger Hudson River as a water supply source for its metropolitan area.

The smallness of the Delaware River imposes a technical problem in the estuary headwaters by a tremendous build-up of silt--a sort of underwaters mini-delta. To flush out the sediment build up, and to maintain a healthy river and estuary system, a natural flow is needed, especially high flows of water in the winter and spring. Loss of flushing in the estuary, cause by mainstem dams, like Tocks Island Reservoir, would prevent this flushing action.

New York City, under a Supreme Court decision of 1954, is required to make releases from its reservoir in the upper basin to maintain the proper flow in the Delaware River. There is no guarantee that the water flow will be maintained for the estuary except at the gauging station at Montague, New Jersey, which is 100 miles upstream from the head of the Delaware Bay estuary at Trenton, New Jersey. The most frightening aspect which jeopardizes the health and welfare of the basin's seven million people, is that there is no guarantee minimum flow to the estuary nor any upper limit to the amount of water that may be taken away from the normal flow.

. . .Should the Delaware River Basin Commission be investigated?

WHAT IS THE PROPOSED POINT PLEASANT PLAN?

The proposed purpose of the Point Pleasant diversion is two fold:

(A.) To supply all the cooling water to the Philadelphia electric company's (PECO) nuclear power station at Limerick, located on the Schuylkill River, and; (B.) To provide a source of potable water for the central Bucks and Montgomery counties. Estimated to be 95 million gallons per day (MGD).

All the water which is used by PECO, which is to be drawn only when cooling water is not available in the Schuylkill River, will be totally lost from the Delaware River watershed.

Water supply for the Bucks-Montgomery Counties and for PECO nuclear power plant initially were conceived as separate projects. The Delaware River Basin Commission (DRBC) suggested combining the facilities about ten years ago as a cost cutting measure. The combined facilities called for PECO to purchase water from Bucks County thru the Point Pleasant Pumping Station, which the county would build.

PECO received approval for all its water supply needs at the Limerick site some years ago. Problems rose throughout the diversion history and spans many county administrations. Lower B[illegible] County suppliers and users objected to the huge amounts of water being taken away from the upper estuary, and the projects costs and obvious relation to the planned Tock Island Project.

Although there is a genuine need for potable water in the area, it is much less than orginally thought when the initial plans were conceived.

Were all of the alternatives considered prior to the approval the Point Pleasant Diversion?

A number of alternatives have not been fully considered, either for cooling water supplies for the PECO Limerick Power Plant, or for the municipal water supply in the Bucks/Montgomery county area.

There are at least three reservoir sites in the Schuylkill River Basin which could be developed to supply water for the Limerick Power Plant Station. If this were done the transmission of water from the Delaware River to the Schuylkill River watershed via the Perkiomen Creek would be totally unnecessary. PECO's cooling water needs should come from the Schuylkill River and not the Delaware! This would eliminate many of the present problems.

Blue Marsh Reservoir, which is located in the Schuylkill River Basin up-stream from the Limerick Plant, has been completed since the plan was first proposed.

The Department of Environmental Resources (DER) owns the property which was orginally to be the site of the Evansburg Reservoir and is now part of a state park. This reservoir was never developed. It lies in the central portion of the Montgomery County water shortage area. A state study shows that this reservoir could be built to supply water for less than one third the cost of water supply by the presently proposed plan.

Additionally General Public Utilities (GPU) offered PECO the use of the water supply reservoir for the proposed Bern Power Plant near Reading, PA. The Bern facility has been dropped and this source of water never developed for the Limerick Station.

The Nockamixon Reservoir (Bucks County), which also belongs to DER, could be the primary source of water for the upper reaches of Bucks and Montgomery County and would also be a less costly solution for local needs. Lake Galenia could be used for local water supply without increasing presently planned draw downs from this existing reservoir.

Expert testimony reveals that the ground water supply is under, not over, developed as indicated in the documents from the Delaware River Basin Commission. A major ground water study by the DRBC is under

OVER

way, but it's results are not known and are therefore not considered in the evaluating needs of this project.

Has the Environmental Impact Statement (EIS) been completed on this project?

The Delaware River Basin Commission has based its decisions on reports made in the early '60's up thru the last report in 1973. They are inadequate for the project to be approved and construction to begin.

Although the Environmental Protection Agency orginally insisted that this EIS be completed (it has changed its mind since the past election), the PA Fish Commission, the Department of Interior--US Fish and Wildlife Service, Audubon Society, the PA Bass & Shad Fisermen, the PA Federation of Sportsmens Clubs, and other concerned citizens continue to ask that this impact study to completed. DRBC has continued to proceed with the construction plans without a full, updated EIS!

WHAT ARE THE PROBLEMS INVOLVED?

The waters to be diverted from the Delaware River into Neshaminy and Perkiomen creeks will not be piped all the way. It will run free flow from points in each stream, the Perkiomen Creek to the Limerick Station and the Neshaminy Creek to the Water Treatment Plant in Chalfont, PA. The use of natural stream beds as open pipes is a precedent which will set a new policy for the Delaware River Basin.

The water transfer via the Perkiomen Creek to the Limerick Station will remove 46 million gallons per day from the Delaware for operation of nuclear power station cooling tower. This water will be totally lost from the Delaware River Basin. This impact study needs considerably more evaluation.

What is the impact on the Delaware River fisheries? It is essential that the impact on fisheries be evaluated. The water withdrawal would reduce the River's flow, especially during the most critical period of naturally low flow. this would contribute to the Delaware estuary's pollution block in that time space. This could greatly affect the migration of American shad during the spring spawning run, as well as the down river migration of juveniles in the fall.

The Delaware River Basin for years had lost its shad and herring fisheries due to major pollution problems in the stream. Through the efforts of the organizations listed above, the Delaware River has been cleaned up and these migration runs have been restored. The Schuylkill River is now in the process of reestablishing the shad fisheries. This will continue to be one of our aims. Under the present DRBC plans. The shad and other fisheries programs could be totally destroyed.

WHAT OTHER STEPS ARE BEING CONSIDERED AT THIS TIME?

Conservation groups continue to ask for an up-dated environmental impact study, by an impartial agency, to be completed on this entire project. Requests for appropriations to complete this project have been presented to proper committees and the U.S. House of Representatives and Senate. The primary concern is that the Point Pleasant Deversion, as it is proposed, is a dangerous precedent.

> . . .An Environmental Impact Statement has never been completed.

Is the Delaware River Basin Commission doing the job it's suppose to do? Its primary purpose is to protect the health, safety, and welfare of the people in the basin. It's been well documented that the Point Pleasant Diversion is only the first step of a large plan to take water away from one watershed and transfer it to another. The DRBC has been inflexible and created more problems than they had solved. One wonders, might a major investigation of this agency be in order?

tions in the Delaware River basin.
Thanks for great fishing fun.

PAUL CRESS
Brookhaven

Dear Mr. Cress:

Thank you for your compliments regarding our management of the state's fisheries resources and for your praise of the Pennsylvania Angler. We are greatly encouraged by the fact that our efforts to improve fishing in the Commonwealth are being noticed by sportsmen such as yourself. We hope that the results of our efforts will mean more fishing enjoyment for you.

The Point Pleasant Diversion is a proposed series of pump stations, pipe lines, reservoirs, and streams which at full operating capacity would withdraw and transport 95 million gallons of water per day (95 m.g.d.) from the Delaware River. Of the 95 m.g.d., 49 m.g.d. would be withdrawn for public water supply in 10 boroughs and 25 townships in Bucks and Montgomery Counties. Ultimately 40 m.g.d. would be used as water supply; 4 m.g.d. would constitute evaporative and seepage losses and 5 m.g.d. would augment flows in the North Branch of Neshaminy Creek. The remaining 46 m.g.d. would be utilized for cooling water purposes at Limerick Nuclear Power Plant, located on the Schuylkill River near Pottstown.

All potential effects on the Delaware River's fisheries would be negative. The water withdrawal would reduce the River's flows and, therefore, the amount of habitat available to the River's fish populations. This would be most critical during periods of naturally low flows, such as those experienced during the 1980–1981 drought. Reduced flows could also contribute an extension of the Delaware Estuary's pollution block in space and in time. Under the flow conditions that exist without the Point Pleasant Diversion the pollution block already limits the size of the Delaware River's American shad population by restricting the upstream and downstream migrations of adults during the spring spawning run. It also controls the outmigration of juveniles in fall. Low flows in early spring or late fall could be disastrous to American shad runs.

Of great concern is the removal of relatively clean water from the Delaware River for potable water supply and the return of 90 percent of that water to the Delaware Estuary via Neshaminy and Pennypack Creeks as treated sewage. Due to the large population densities in Bucks and Montgomery Counties which have been stimulated by uncontrolled development, most sewage treatment plants are overloaded with wastes, resulting in inadequate treatment for the survival of many pollution sensitive aquatic life forms. Increased population growth invited by this artificially increased water supply in the region will produce even larger volumes of sewage. Since population growth in the region often exceeds the rate at which sewage treatment facilities are improved, even greater overloading may be anticipated. The probable increase in organic waste entering the Delaware Estuary will further contribute to the yearly formation of the Delaware Estuary's pollution block, which limits both anadromous and resident fisheries.

Impingement and entrainment of egg, larval, and juvenile stages of resident and anadromous fish by the Point Pleasant Pumping Station will result directly in fish mortality, the degree of which will depend upon the design of the water intake system. Impingement is the trapping of fish on the intake screens and entrainment is the sieving of fish by the screens. This could have a negative effect on the local fish populations, especially if American shad are restored to the lower Delaware. The Diversion will also contribute to the cumulative loss of fish in the Delaware River resulting from industrial water withdrawals.

Thank you for your interest in the Delaware River's fisheries.

Sincerely yours,
Michael L. Kaufmann
Area Fisheries Manager

Cycling to his favorite, the Delaware River, George Saylor, of Martins Creek, doesn't let the high price of gasoline worry him! Photo: Dennis Scharadin.

FACT SHEET

Point Pleasant Diversion

Purpose: To divert 95 million gallons per day of water from the Delaware River at Pt. Pleasant, PA, to the Neshaminy and Perkiomen Creeks. Up to 49 million gpd will be used to expand the water supply system for Bucks and Montgomery Counties. About 46 million gpd will be delivered to the Limerick Nuclear Generating Station to supplement Schuylkill River flows.

Components: The project entails a pumping facility at the Delaware and a conveyance system to the North Branch, Neshaminy Creek and the East Branch, Perkiomen Creek. Water diverted to Lake Galena via Neshaminy Creek will be treated at a water treatment plant and pumped to the counties' water supply system. Water diverted to the East Branch, Perkiomen Creek will be used 8 to 9 months per year to augment Schuylkill River water for the Limerick Station.

Project Sponsors: Neshaminy Water Resources Authority and Philadelphia Electric Co.

DRBC Action: Granted approval for the withdrawals on February 18, 1981 filed a Negative Declaration on the need for a new EIS, August 1980.

Need for Environmental Impact Statement: The project was originally conceived as a component of the basin plan premised upon the Tocks Island Dam. Several early studies, including an EIS published in early 1973, were performed to evaluate its anticipated environmental impacts. Project changes, de facto deauthorization of Tocks Island Dam, and more recent refinements in the diversion plans render much of the early material obsolete. There is a need to draw from all existing information, to further evaluate changing conditions, and to do an up-to-date EIS on the project as currently proposed.

The following areas are currently found to be deficient:

1) There has been significant material modification to the proposed structural design not addressed in the 1973 document:

2) The Corps' 404 Permit assessment performed by Betz, Converse & Murdock, Inc. identifies numerous areas where environmental analysis is deficient. To date, no further investigations have been performed in these areas.

3) Delaware River flow at Trenton during the drought of January 1981 sets a new low level of record. This new information must be considered in determining the environmental impacts of the diversion project.

4) The Delaware River provides water to nearly 10% of the nation's population. The Point Pleasant Diversion must be evaluated in light of the potential for over-allocating this resource.

5) The diversion will facilitate 20% more growth in the Bucks/ Montgomery County area over the next 2 decades. The impacts of such urbanization are unaddressed in any previous assessment of the diversion.

6) The diversion will allow the 98 toxic pollutants commonly found in the lower Delaware River (identified by an MIT study in 1979) to become more concentrated during low flows. State water quality standards will be violated more often and with more severity as a result of the reduction in the river's assimilative capacity. Steps to be taken to protect Philadelphia and other downstream users from this increased hazard have yet to be identified.

7) As a result of the rejection of Tocks Island Dam, the current relationship between the diversion and complementary storage reservoirs elsewhere in the basin has not been resolved, nor impacts ascertained.

8) Information on the planned operation of the diversion system is woefully inadequate. A more detailed model of project operation must be developed to accurately assess the environmental impacts of the proposed withdrawals upon the lower Delaware and its estuary. This is critical for determining impacts during drought emergencies.

9) The impingement and entrainment of fish is inadequately addressed in previous assessments. Mitigation measures have not been fully developed to compensate for such losses.

10) The U.S. Fish & Wildlife Service and the DRBC predict that depressed levels of dissolved oxygen will cause fish kills in the lower Delaware and its estuary. The extent and recurrence of these episodes requires further documentation.

Attachments

PENNSYLVANIA FEDERATION OF SPORTSMEN'S CLUBS, INC.

Representing 1013 Affiliated Clubs with a Total of 200,508 Members

(Affiliate of National Wildlife Federation)

1718 N. Second Street Harrisburg, Pa. 17102

Telephone (717) 232-3480

JAMES McKNIGHT
First Vice President

April 6, 1981

Hon. John P. Murtha
U.S. Representative
2423 Rayburn Office Bldg.
Washington, DC 20515

Dear Congressman Murtha:

I'm sure you're aware of the concern of many Pennsylvanians about the proposed Point Pleasant diversion from the Delaware River.

The Pennsylvania Federation of Sportsmen's Clubs has asked the Delaware River Basin Commission to make an Environmental Impact Statement to include the impacts on the entire Delaware Valley as well as a new and complete study of the use of the North Branch Neshaminy Creek and the East Branch Perkiomen Creek as free-flow conveyances.

Under these circumstances we are asking that an appropriation of $250,000 be granted to accomplish this study by an impartial agency.

I'm sure you recall the fight that was carried on by the Pennsylvania Federation of Sportsmen's Clubs to clean up the Delaware River Basin which re-established the shad run as it is today. Our primary concern remains to keep the Delaware River a free-flowing stream supporting aquatic life as well as supplying water as needed for the Commonwealth and the other states bordering it.

Attached is a copy of our letter to the Delaware River Basin Commission's Executive Director, Gerald M. Hansler, which details our concerns.

Sportsmen, as well as many other Pennsylvanians,

CONSERVATION PLEDGE

I GIVE MY PLEDGE AS AN AMERICAN TO SAVE AND FAITHFULLY TO DEFEND FROM WASTE THE NATURAL RESOURCES OF MY COUNTRY – ITS SOIL, AIR, MINERALS, FORESTS, WATERS AND WILDLIFE.

IN ALL ASSEMBLIES OF AMERICANS – LET THIS PLEDGE RING OUT!

FEDERATION OF SPORTSMEN'S CLUBS
of BUCKS COUNTY PENNSYLVANIA

April 6, 1981

State Senator Edward L. Howard
16 North Franklin Street
Doylestown, PA 18901

Dear Ed:

We sportsmen in Bucks County really appreciated your attendance at the public meeting on the Quakertown sewer plant and the Delaware River Diversion problems. All reaction that I heard was favorable to your comments, especially those to Mr. Weston.

I will contact your office to arrange for discussion of these problems with you and other legislators in the near future.

Thanks again, I remain,

Sincerely yours,

Jim McKnight
Conservation Committee
Chairman

JM/en

CONSERVATION PLEDGE

I give my pledge as an American to save and faithfully to defend
from waste the natural resources of my country —
its soil and minerals, its forests, air, waters and wildlife.

PENNSYLVANIA FEDERATION OF SPORTSMEN'S CLUBS, INC.

Representing 1013 Affiliated Clubs with a Total of 200,508 Members

(Affiliate of National Wildlife Federation)

1718 N. Second Street Harrisburg, Pa. 17102

Telephone (717) 232-3480

JAMES McKNIGHT
First Vice President

April 6, 1981

Senator Arlen Specter
Suite 253
Russell Senate Office Building
Washington, D.C. 20510

Dear Senator:

I'm sure you're aware of the concern of we Pennsylvanians about the proposed Point Pleasant diversion from the Delaware River. As your Conservation Committee chairman during your sucessful campaign to become our United States Senator, I discussed this problem with you on several occasions.

The Pennsylvania Federation of Sportsmen's Clubs has asked the Delaware River Basin Commission to make an Environmental Impact Statement to include the impacts on the entire Delaware Valley as well as a new and complete study of the use of the North Branch Neshaminy Creek and the East Branch Perkiomen Creek as free-flow conveyances.

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Attached is a copy of our letter to the Delaware

CONSERVATION PLEDGE

I GIVE MY PLEDGE AS AN AMERICAN TO SAVE AND FAITHFULLY TO DEFEND FROM WASTE THE NATURAL RESOURCES OF MY COUNTRY – ITS SOIL, AIR, MINERALS, FORESTS, WATERS AND WILD LIFE

IN ALL ASSEMBLIES OF AMERICANS – LET THIS PLEDGE RING OUT!

River Basin Commission's Executive Director, Gerald M. Hansler, which details our concerns.

Sportsmen, as well as many other Pennsylvanians, are seriously concerned that unless this project is fully examined in depth it will set policy by precedent, rather than through informed discussion and study.

The National Wildlife Federation, the U.S. Dept. of Interior Fish and Wildlife Service, the U.S. Environmental Protection Agency, Region III, the Pennsylvania Fish Commission, Trout Unlimited of Pennsylvania, as well as state, county and local officials have asked that this be done.

I would be glad to discuss this in further detail with you or anyone on your staff at your convenience. My phone number is (215) 282-1182.

Respectfully,

James McKnight

James McKnight
1st Vice President, PFSC

JM/en
enclosure

March, 1981

COMMENTS ON
THE POINT PLEASANT/NORTH BRANCH WATER TREATMENT PLANT
ENVIRONMENTAL IMPACT STATEMENT

A STATEMENT BY JAMES MCKNIGHT, FIRST VICE PRESIDENT
PENNSYLVANIA FEDERATION OF SPORTSMEN'S CLUBS

BEFORE THE DELAWARE RIVER BASIN COMMISSION

THANK YOU FOR THIS OPPORTUNITY TO COMMENT ON THE SO-CALLED NEGATIVE DECLARATION REJECTING THE NEED FOR AN ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED NORTH BRANCH WATER TREATMENT PLANT AND THE POINT PLEASANT DIVERSION PLAN.

I WILL PREFACE MY REMARKS BY BRIEFLY DESCRIBING THE PENNSYLVANIA FEDERATION OF SPORTSMEN'S CLUBS INC. THE FEDERATION IS PENNSYLVANIA'S LARGEST NONPROFIT CONSERVATION ORGANIZATION WITH OVER TWO HUNDRED THOUSAND DUES PAYING MEMBERS. WE ARE ALSO THE VOICE FOR OVER A MILLION SPORTSMEN AND WOMEN ACROSS THE COMMONWEALTH.

WE, THE PENNSYLVANIA FEDERATION OF SPORTSMEN'S CLUBS FIRMLY BELIEVE AN ENVIRONMENTAL IMPACT ASSESSMENT SHOULD BE CONSIDERED IN THE EVALUATION OF THE POINT PLEASANT PROJECT. CURRENT STATEMENTS DO NOT ADEQUATELY ADDRESS THE REAL ISSUES.

FOR INSTANCE, THE ISSUE OF LOW-FLOW IN THE DELAWARE SHOULD RECEIVE CAREFUL STUDY. THE COMMISSION HAS STATED THAT UP TO 95 MGD WILL BE WITHDRAWN IF THE FLOW AT TRENTON IS MORE THAN 3,000 CFS, THEREBY REPRESENTING A 5% DIVERSION. HOWEVER THE SPECIFIC AMOUNT OF DIVERSION PERMITTED WHEN THE FLOW AT TRENTON FALLS BELOW 3,000 CFS IS NOT CLEAR. CONCISE PROCEDURES SHOULD BE ESTABLISHED FOR ALL DIVERSIONS UNDER ALL POSSIBLE CONDITIONS.

THE IMPACT OF A 5% DIVERSION ON THE AQUATIC HABITAT DURING LOW-FLOW PERIODS HAS NOT BEEN STUDIED. A 5% DIVERSION MAY APPEAR TO BE RELATIVELY INSIGNIFICANT IN A GENERAL SENSE, BUT COULD BECOME EXTREMELY CRITICAL IN TERMS OF ASSIMILATIVE CAPACITY DURING LOW-FLOW PERIODS. THE EFFECT OF SUCH A DIVERSION SHOULD BE ANALYZED ESPECIALLY AS IT RELATES TO FURTHER CONCENTRATION OF THE NINETY-EIGHT POLLUTANTS FOUND IN THE LOWER DELAWARE AND IDENTIFIED BY MIT STUDIES.

THE FEDERATION IS ALSO CONCERNED WITH HOW CUMULATIVE WATER WITHDRAWALS WILL AFFECT AQUATIC HABITAT. THE COMMISSION HAS CONCLUDED THAT THE POINT PLEASANT WITHDRAWALS OF 95 MGD WILL NOT HAVE A SIGNIFICANT IMPACT ON AQUATIC LIFE. THAT CONCLUSION WAS BASED ON THREE PREVIOUS STUDIES CONDUCTED FOR THE MARTIN'S CREEK, GILBERT AND PORTLAND ELECTRIC GENERATING STATIONS ON THE DELAWARE. THESE STUDIES MEASURED THE IMPACT OF <u>INDIVIDUAL</u> WATER WITHDRAWALS OF 144 MGD - 274 MGD AND CONCLUDED THAT THE WITHDRAWALS HAD AN INSIGNIFICANT IMPACT ON FISH EGGS AND LARVAE.

NO ONE HAS ATTEMPTED TO MEASURE THE CUMULATIVE EFFECT OF ALL WATER WITHDRAWALS IN THE DELAWARE. IT IS THIS EFFECT WHICH TAKES ITS TOLL ON AQUATIC ORGANISMS AND MORE IMPORTANTLY ON PHILADELPHIA'S POOR DRINKING WATER QUALITY WHICH RANKS AS ONE OF THE WORST NATIONALLY, THIS SHOULD BE ANALYZED CAREFULLY.

ANOTHER ISSUE WHICH NEEDS DETAILED STUDY IS WHETHER THESE NEW WATER USERS SHOULD PROVIDE MAKEUP WATER FOR THE DELAWARE. AN ADDITIONAL RESERVOIR MAY BE NEEDED TO PROVIDE MAKEUP WATER WHEN THE RIVER FLOWS AT TRENTON APPROACH 3,000 CFS.

ACCORDING TO THE COMMISSION MAKEUP WATER WOULD NOT BE NEEDED FOR LIMERICK AND THE NESHAMINY WATER RESOURCES AUTHORITY BECAUSE WATER WOULD ONLY BE EXTRACTED AT POINT PLEASANT WHEN RIVER FLOW AT TRENTON EXCEEDS 3,000 CFS. IN ADDITION IT IS SUGGESTED THAT LIMERICK'S WATER-USE PERMIT ALLOWS FOR THE CURTAILING OR SUSPENSION OF PLANT OPERATION DURING LOW-FLOW PERIODS IN THE ABSENSE OF COMPENSATING RELEASES. BUT IT IS UNCLEAR WHETHER OR NOT THE CURTAILMENT OR SUSPENSION IS MANDATORY. IT IS ALSO UNCLEAR WHETHER THE NESHAMINY WATER RESOURCES AUTHORITY IS ALSO SUBJECT TO THOSE SAME PROVISIONS. IF SO, WHAT ALTERNATIVES DO THEY HAVE IN A PROLONGED DROUGHT?

A DISCRETIONARY COMMISSION POLICY IS INADEQUATE. CURTAILMENT OR SUSPENSION AS A DISCRETIONARY COMMISSION ACTION DURING LOW-FLOW PERIODS MAY NOT FULLY PROTECT THE PUBLIC.

HISTORICAL DROUGHT RECORDS FOR THE SCHUYLKILL AND DELAWARE INDICATE THAT LIMERICK WOULD PROBABLY BE CRITICALLY DEPENDENT UPON THE DELAWARE FOR COOLING WATER DURING THE DELAWARE'S LOW-FLOW. CAN THE COMMISSION BE RELIED UPON UNDER INTENSIVE PRESSURE TO EXERCISE ITS DISCRETION DURING SUCH SITUATIONS?

THE MOST SERIOUS AND UNADDRESSED ISSUE IS THE DIVERSION OF 45 MGD FOR THE NESHAMINY WATER RESOURCES AUTHORITY. THIS NEW WATER WILL ENCOURAGE MORE DEVELOPMENT IN BUCKS/MONTGOMERY COUNTY AREA. SUCH DEVELOPMENT WILL BE CRITICALLY DEPENDENT UPON THOSE WITHDRAWALS FURTHER EXPLOITING AN OVEREXTENDED RIVER BASIN. THIS DEPENDENCY WILL INTENSIFY DURING TIME OF LOW-FLOW AND WOULD HINDER THE COMMISSION'S ABILITY TO SHUT DOWN THE POINT PLEASANT PUMPING STATION DURING PERIODS OF DROUGHT.

THE REAL QUESTION IS HOW MUCH GROWTH IN A REGION IS ENOUGH? SHOULD DIMINISHING AND POLLUTED GROUND AND SURFACE WATER SUPPLIES BE AN INDICATOR OF A NATURAL GROWTH LIMITATION? SHOULD DEGRADED AIR QUALITY BE A WARNING? SHOULD EVERY SQUARE FOOT OF LAND BE COVERED WITH CONCRETE, STEEL AND SHINGLES?

I FOR ONE FIND LITTLE PLEASURE IN CONTEMPLATING A FUTURE BUCKS COUNTY WHERE EVERY NICHE IS SUBDUED FOR FOOD, TRANSPORTATION EMPLOYMENT OR SHELTER. NOR IS AN OVERCROWDED LANDSCAPE CONDUSIVE FOR THE SATISFYING OF MY INTERMOST NEEDS

FOR SOLITUDE, NATURAL BEAUTY OR FOR THE WILDLIFE I HAVE ENJOYED THROUGHOUT LIFE.

WHAT WORTH IS A REGION WHEN NOTHING IS LEFT TO THE UNFETTERED ACTIVITIES OF NATURE? WHEN EVERY CUBIT OF LAND IS CONQUERED FOR HUMAN BEINGS; EVERY FLOWERY PATCH OR OPEN SPACE BULLDOZED OVER, ALL WILDLIFE NOT DOMESTICATED, EXTRICATED AS RIVALS, EVERY FENCE ROW OR TREE CUT DOWN AND BURNED IN A WOODSTOVE. MUST SOUTHEASTERN PENNSYLVANIA LOSE WHAT'S LEFT OF ITS PLEASANT AMENITIES SO UNLIMITED POPULATION GROWTH CAN ABOUND? IF QUICK AND EASY REGIONAL WATER FIXES ARE ACCEPTED TO ENABLE THIS BURGEONING REGION TO SUPPORT AN EVEN LARGER, BUT NOT NECESSARILY HAPPIER OR MORE SECURE POPULATION WHAT FUTURE HAVE WE? FOR THE SAKE OF POSTERITY I HOPE WE SQUARELY FACE THIS ISSUE OF LIMITS GROWTH AS IT RELATES TO EXPANDING WATER SUPPLIES THROUGH ENGINEERED SOLUTIONS.

THE DELAWARE RIVER BASIN COMMISSION HAS BEEN ENTRUSTED WITH THE WISE USE, PROPER MAINTENANCE AND PROTECTION OF THE WATER RESOURCES OF THIS HISTORICALLY ATTRACTIVE RIVER BASIN. WITH THAT AWESOME POWER GOES A NEED FOR RESPONSIBLE AND DECISIVE LEADERSHIP.

WE HAVE BEFORE US A MAJOR AND YES, A CRITICAL RESOURCE DECISION. DON'T WE DESERVE TO HAVE ALL THE NECESSARY FACTS OR DO WE ONCE AGAIN BLUNDER FORWARD MINDLESS OF THE ULTIMATE CONSEQUENCES OF OUR ACTIONS?

PENNSYLVANIA FEDERATION OF SPORTSMEN'S CLUBS, INC.

Representing 1013 Affiliated Clubs with a Total of 200,508 Members

(Affiliate of National Wildlife Federation)

1718 N. Second Street Harrisburg, Pa. 17102

Telephone (717) 232-3480

JAMES McKNIGHT
First Vice President

March 5, 1981

District Engineer
Philadelphia District, Corps of Engineers
Department of the Army
Custom House - 2d & Chestnut Sts.
Philadelphia, PA 19106

Point Pleasant Diversion Plan

INITIAL COMMENTS ON PERMIT APPLICATIONS NAPOP-R-80-0813-3,
dated April 6, 1981, and
REQUEST FOR PUBLIC HEARING

We request a public hearing in Bucks County on the two applications by the Neshaminy Water Resources Authority which are part of the Point Pleasant Diversion project. We are concerned about the continuation of the shad run on the Delaware and its tributaries. It is important that local sportsmen have an opportunity to see and comment upon the plans for the river intake, as well as for the intakes for the proposed water treatment plant at Chalfont.

Among the unanswered questions which concern us are:

--ecological damage to the river bed at Point Pleasant

--entrainment and transportation of aquatic life forms, especially parasitic forms such as the lamprey eel, etc.

--definition of "high-flow" skim withdrawals with regard to Delaware flow levels, in as much as the Merrill Creek reservoir proposal is closely tied to the project

--adverse impacts on flow below the Point Pleasant intake on saline control and water quality in the Estuary

--lack of an updated, impartial Environmental Impact Statement on the Neshaminy Water Supply System, especially on the North Branch Neshaminy Creek and the East Branch Perkiomen Creek

--lack of a comprehensive water use plan for the Delaware River Basin

We oppose issuance of these permits until hearings are held and until an Environmental Impact Statement is issued.

We request the opportunity to make further comments prior to the June 6th deadline.

Sincerely,

James McKnight

James McKnight
First Vice President, PFSC
(215) 282-1182

FEDERATION OF SPORTSMEN'S CLUBS
of BUCKS COUNTY PENNSYLVANIA

January 7, 1981

Mr. Andrew L. Warren
Bucks County Commissioner
Bucks County Courthouse
Doylestown, PA 18901

Dear Commissioner Warren:

Each day we continue to receive news releases on the planned construction of the Point Pleasant Pumping Station. Along with this, each day, are unanswered questions and problems pertaining to this facility.

On November 7, 1980 we wrote to you presenting a number of questions concerning the operation of this facility. To date we have received no reply. Would it be possible to obtain this information in the near future?

In your report at the Delaware River Basin Commission hearing on November 18th you mentioned the need for water in the Warrington and Neshaminy areas of Bucks County, but no mention was made of the eastern and northern distribution lines. Do the present plans include the pumping facilities and distribution mains for these two systems?

It seems poor planning from an engineering standpoint to take water from the Tohickon Creek, pass it through Lake Nockamixon, which then discharges into the Delaware River just above the Point Pleasant Diversion intakes, then to be pumped to the Chalfont Water Treatment Plant, and then back to Quakertown. It would appear much more feasible to treat the water at the Lake, pump it back to Quakertown, and, if need be, continue the distribution lines south to include municipalities originally to be supplied by the Northern Transmission Main. Will the future users of the Northern Transmission Main facilities be required to bear the entire cost of its installation? If the suggested change were made, it would certainly appear to reduce the cost of this installation considerably.

Are there figures on the costs of construction and operation of the entire system available for public perusal? If not, will these figures be available before the first phase of construction begins?

Is PECO to have exclusive riparian rights on the East Branch of the Perkiomen Creek while they are pumping water to their Limerick Station? If so, what happens to these same rights for every land owner or water user on the Perkiomen Creek?

Within twenty years of the start-up date, how many people do you expect to be using water supplied from the Chalfont plant? Will these numbers be sufficient to cover the cost of the facilities?

CONSERVATION PLEDGE

I give my pledge as an American to save and faithfully to defend
from waste the natural resources of my country —
its soil and minerals, its forests, air, waters and wildlife.

Again, we request an opportunity to have all concerned groups of Bucks County citizens get together and help to solve this problem. With the help of knowledgable and unbiased people in the various agencies these problems could be solved. The Bucks County Federation of Sportsmen's Clubs is awaiting your reply. I remain,

Yours sincerely,

James McKnight, Secretary
Box 400, Route 309
Coopersburg, Pa. 18036

cc: Commissioner Elaine Zettick
Commissioner Carl Fonash
Mr Peter Duncan, Asst. Exec. Director
PA Dept. of Environmental Resources
The Daily Intelligencer, Doylestown
The Free Press, Quakertown
The News Herald, Perkasie
The Courier Times, Levittown

FEDERATION OF SPORTSMEN'S CLUBS

of BUCKS COUNTY PENNSYLVANIA

October 27, 1980

The Honorable Richard Thornburgh
Governor of Pennsylvania
225 Main Capitol Building
Harrisburg, Pa. 17120

Dear Governor Thornburgh:

The Point Pleasant Diversion, on the Delaware River, has become one of the most controversial problems of southeastern Pennsylvania. We need your help to get all the facts on the proposed construction, operation and every possible problem that might occur if this project is completed.

In 1969 the Delaware River Basin Commission, of which you are a member, proposed that they be the sole agency to control the Delaware River basin water supply, including the proposed Point Pleasant Diversion. An afterthought was to increase the Gallons Per Day (GPD) to allow the transfer, through the Perkiomen Creek, enough water to operate a 2.2 million KW Nuclear generating station on Schuylkill River. This is to be part of the electrical power supply Grid of the General Public Utility Corporation, a conglomerate of power companies controlling electrical power distribution throughout the region.

The request for construction of the Limerick Nuclear Plant was opposed by many organizations, state and federal agencies, and concerned citizens on the possible adverse environmental and economical aspects of the project.

The Joint and Water Conservation Committee held hearings in Philadelphia on the need of the huge nuclear station as well as the poor location of it, due to the lack of sufficient cooling water in the Schuylkill River watershed during low flow. This water deficiency is the only reason for the PECO's request for the water transfer from the Delaware River. Even with these problems, somehow the construction permit was issued.

One of the requirements was a complete Environmental Impact study of both water sheds. This was never completed.

Executive Director of the D.R.B.C., Gerald M. Hansler's negative Declaration of September 1980, indicated the E.I.S. on the Perkiomen and Neshaminy Creeks is not necessary. Therefore, it will not be made. Apparently the fact that this 45 MGD

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FEDERATION OF SPORTSMEN'S CLUBS

of BUCKS COUNTY PENNSYLVANIA

maximum must flow by gravity through 21 miles of the Perkiomen Creek makes no difference.

The total maximum withdrawal of 95 MGD will have a serious impact on the required water flow at the Trenton Dam during drought conditions. During this summer's dry spell, the required flow could hardly be maintained, even with a daily release from the Beltzville Reservoir.

After the fiasco at Three Mile Island, an updated survey must be made on the evacuation of the many thousand local residents, the cost to the Bucks and Montgomery residents and, more importantly, the P.E.C.O. can continue to build this multi-million dollar "White Elephant" without an Operating Permit. Who is to benefit by the Point Pleasant Diversion, the land developers in central Bucks and Montgomery Counties, the residents and taxpayers, or the Philadelphia Electric Company?

As Secretary of the Federated Sportsmen's Clubs of Bucks County, and with the approval of the Pennsylvania Federation of Sportsmen Clubs resolution at the September 20, 1980 convention, I am requesting you to direct the D.R.B.C. to fulfill its obligation to complete an impartial Environmental Impact study on the entire river basin, thereby halting any further construction on these sites.

Thank you for your consideration on this problem, as I await your reply, I am,

James McKnight

Sincerely yours,
James McKnight
Box 400, Route 309
Coopersburg, Pa. 18036

CONSERVATION PLEDGE

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FEDERATION OF SPORTSMEN'S CLUBS
of BUCKS COUNTY PENNSYLVANIA

March 24, 1980

Gerald M. Hansler, Executive Director
Delaware River Basin Commission
P.O. Box 7360
West Trenton, NJ 08628

Dear Mr. Hansler:

In reference to your intent of negative Declaration of an EIS on the streams and diversions on the Delaware River Pump Station at Point Pleasant, PA and the Neshaminy and Perkiomen Creeks.

This proposed Diversion with its dredged channel in the Delaware River will be a detrimental change to:

(1) the Shad migration up and down the river:
(2) to the required flow over the Trenton Dam which now controls the salt water back up at the Torresdale intake of the Phila. Water Co.'s pumping station for water supply:
(3) to the small tributary and main channels of the Neshaminy and Perkiomen Creeks:
(4) to the New Galena Lake for recreational purposes, and cause
(5) impossible demands, under present conditions, for water by the Limerick Nuclear Power Station and the Bucks and Montgomery County water diversions during times of low flow or drought.

The site location of the Limerick Nuclear Station was a mistake from its inception date because of the known lack of sufficient cooling water from the Schuylkill River. The frenzied construction of housing developments and shopping centers in the Bucks-Montgomery County area have lowered the water table to a dangerously low level. But must the destruction of the entire Delaware River Basin be the price paid for these two man made problems?

We strongly urge you to reconsider the entire problem and to ask that a complete environmental impact study be made on the Neshaminy and Perkiomen Creeks, and the Delaware River Basin. We will gladly discuss the entire project with you, the Phila. Electric Company, and the Bucks County Commissioner

Sincerely yours,

James McKnight
Secretary-S.E. Division
Penna. Federation of
Sportsmen's Clubs

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(Applause.)

MR. MOODY: Thank you.

Tracy Carluccio.

PRESENTATION OF TRACY CARLUCCIO

MS. CARLUCCIO: My name is Tracy Carluccio and I am a housewife in Hunterdon County, New Jersey. I am representing the Hunterdon Alliance for Safe Energy, Box 399, Annandale, New Jersey, 08801.

I was the only one who could come here tonight. I am not real accustomed to this. Now my husband diin't want me to come here tonight because he said I would make a fool out of myself in front of a bunch of smart people, but I felt it was my duty to come. You see, I am from Virginia and my husband's father, he had a little farm up in Hunterdon County. So we came up there and I have been farming it and raising children ever since I was 15. I have got about six or seven running around now.

That is why I am here tonight, to speak for my children. They can't be here so I am here to talk for them, the future generation.

I dont know, I guess you don't have to be too smart to be afraid of nuclear power, and it don't mean you are dumb neither.

(Applause.)

MS. CARLUCCI: We all know what happened at Three Mile Island, and that is not the only thing I want to say. I read an article by the Hunterdon Alliance that said that they were going to take water out of the Delaware River and they are going to send it over to the Limerick Nuclear Power Plant. Well, that got me real upset. I mean I want to illustrate something to you.

If I drink a cup of water, it goes down into my system and my organs process that food that I eat and that water and it sends it on out and that water helps flush out any toxins that build up in my body, too.

Now my body is like the Delaware River, and it is only common sense that the more water you take out of that river with the same amount of junk going into it as it goes on down, the worse that water is going to be and the more polluted that river is going to be by the time it gets down in the intestines down around Philadelphia.

(Laughter.)

MS. CARLUCCI: And I shudder to think what those people are going to be drinking once we take more water out.

Now I think as a mother I know that the key to good health is the proper elimination of waste. How is the Delaware River going to eliminate its waste? What are the people down there going to be drinking? What

are my children going to be drinking, water or shi-- , I mean waste.

(Laughter.)

MS. CARLUCCI: Water or waste, what are they going to be drinking? I mean are my children going to have a world to live in at all?

That is what I came to say and I hope you listen well. I hope you heard what I had to say because I don't want to have to come back here again. I got a lot of things to worry about. I have got the farm and raising a family and I hope that we never have to meet again.

Thank you.

(Applause.)

MR. MOODY: Thank you.

Jonathan D. Scott.

PRESENTATION OF JONATHAN D. SCOTT

MR. SCOTT: I have the dubious honor of following that beautiful speech.

My name is Jonathan Scott. I live in Plumstead Township, Bucks County, approximately one-half mile from the Bradshaw Reservoir.

This reservoir is a major part of the proposed, and I underline with many lines "proposed" Point Pleasant water diversion. As a property owner in

this area I am very concerned about the following effects of this project.

No. 1, the pumping of millions of gallons of possibly toxic river water daily into our pristine area, and if you don't believe it is pristine come over and see.

No. 2, the chance of pipe failure, dam failure or human failure which can allow the seepage of millions of gallons of this water into the soil and contaminate our wells, not to mention poisining our two local streams, Gettes Run and the north branch of the Neshaminy.

No. 2, it is my understanding that there have been no definitive analyses of soil permeability in the Bradshaw area.

No. 4, that there is some question to the stability of this above-ground reservoir because of the constant drawing down and filling which will take place on a daily basis.

This project will affect the property values in the vicinity. Just in the past few months many adjacent properties have been put up for sale. Apparently these residents realize that they won't be able to sell their properties if and when construction starts. We are not used to bulldozers.

It is for these reasons and others that I, along with 1,000 other Plumstead Township residents signed this petition last September. I would like to point out that our petition drive took only four days to reach our goal of 1,000 signatures in our rural township of only 2,000-plus voting age people.

The petition reads as following:

"Petition - To the Plumstead Township Supervisors: We, the undersigned, residents of Plumstead Township, Pennsylvania, oppose the proposed Point Pleasant Pumping Station and its construction. We urge our township officials to deny any proposal to alter the zoning ordinance, or to issue any variance that would permit the construction of the Point Pleasant pumping station."

I would like to, if I may, enter this petition in the record.

That is all I have to say.

(The petition submitted for the record follows:)

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

WE THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1.	Joanne Viehweger	Viehweger Tohickon Hill Box 326 Pt Pleasant Pa 18950
2.	Charles Pickl	Rt. 1 Wahl Box 102 Pipersville Pa 18947
3.	Mr & Mrs Jos Smith	Rt. 1 Box 100 Pipersville Pa 18947
4.	Carol B. Billman	Box 98 GROVELAND Rd. PIPERSVILLE, Pa.
5.	V B Gibson	Box 100, Gardenville Pa 18926
6.	Warren Moyer	BRADSHAW ROAD General Delivery GARDENVILLE, Pa. 18926
7.	Tom Higgs	Box 74, Gardenville Pa. 18926
8.	Eleanor Lear	Box 178 Gardenville, Pa 18926
9.	E. Morwald	Box 101 Gardenville, Pa 18926
10.	[illegible] Morwald	Box 101 " " "
11.	Dale Jones	P.O Box 35 Gardenville Pa. 18920
12.	Ellen Jones	PO Box Gardenville Pa 18926

	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13.	Lyle Sawtelle	Box 1, Gardenville, Pa 18926
14.	Pat Sawtelle	PO Box 1, Gardenville, Pa 18926
15.	Gren Mary	Bradshaw Rd, Gardenville, Pa. 18926
16.	Thar Koch	PO Box 294 state park rd. Pt. Pleasant 18950
17	Debra Koch	PO Box 294 State Park Rd. Pt. Pleasant 18950
18.	E. G. Melk	Box 64 - St Park R. Pt. Pleasant 1895
19.	Sawtelle	Box 294 State Pk Rd Pt. Pleas 1895
20.	Jack Kepburn	3209 Glenrose Ave. Bristol Pa
21.	[illegible]	State Park Road, Pt. Pleasant
22.	Elsie Polcari	State Park Rd, Pt. Pleasant
23.	Kenneth E Allen	P O Box 171 Point Pleasant Pa 18950
24.	Joseph R. Comber	Point Pleasant. Pa. 18950
25.	Irma A. Comber	Pt. Pleasant, Pa. (Tohickon Hill Rd.)
26.	Marian D Corcoran	323 - Pa 18950
27.	Shelley Kravitz	2nd Spring Farm Pt. Pleasant, Pa 1894
28.	Pete Scales	Groveland Rd. Pipersville
29.	Arthur Shull	Groveland R.D. Pipersville Pa
30.		

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

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WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1.	Andreas Kircher	LANDISVILLE RD. DOYLESTOWN, PA
2.	Joseph J Breitz	LANDISVILLE Rd DOYLESTOWN RD 2 PA.
3.	Louise Breitz	Landisville Rd. Doylestown RD 2. PA
4.	James R Shambaugh	LANDISVILLE Rd DOYLESTOWN Rd 2 PA
5.	Mary Jane Shambaugh	" " "
6.	Tony Lambert	Landisville Rd Doylestown RD2 PA.
7.	Dave Silvio	David Sapaba 348-1326 Landisville Doylestown RD 2 PA
8.	Paul Franklin	Landisville Rd Doylestown RD 2 Pa
9.	Pauline D. Franklin	" " " "
10.	Jennie L. Perry	" " " "
11.	Clyde L. Godshall	" " " "
12.	Jane Reno	" " " "
13.	Mike Reno	" " " "

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13. Edward Child	EDWARD CHILD TOHICKON HILL RD. POINT PLEASANT
14. Gertrude Child	Gertrude Child Tohickon Hill Rd PointPleasant PA.
15. Eugene Child	Eugenechild " " "
16.	Frieda Hinterleitner "
17. [illegible]	T.J. TANTILLO TOHICKON HILL RD. PT. PLEASANT, PA
18. Mary J. Tantillo	MARY J. TANTILLO TOHICKON HILL RD. PT. PLEASANT, PA.
19. [illegible]	ALBI FETZER TOHICKON HILL RD PT PLEASANT PA
20. Brooke M Fetzer	BROOKE M FETZER Tohickon Hill Rd pt pleasant
21. [illegible]	Box #18, POINT PLEASANT.PA. 18950
22. Barbara Postel	BARBARA POSTEL BOX 18, PT. PLEASANT, PA.
23. Donna Stites	VAUGHN & DONNA STITES, PT. PLEASANT, PA.
24. GARY White	Box 261 Pt. Pleasant Pa. 18950
25. DIANE WHITE	" " "
26. [illegible]	Box 387 Pt. Pleasant Pa 18950
27. [illegible]	Box 172 Pt Pleasant
28. [illegible]	Box 137 Pt Pleasant
29. Edythe V Matt	Box 326 Pt. Pleasant, Pa. 18950
30. John Matt	" " "

PETITION

12

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION..

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1. W. KABALA	PT PLEASANT PK RD 1 NEW HOPE PA 18939
2. J McClurg	OLD EASTON RD. DANBORO, PA. 18916
3. Mary Wright	Twin Silo Rd Gardenville Pa 18926
4. Claude Perkins	Rt 413. Gardenville Pa 18926
5. Ted Perkins	Rt 413 Gardenville Pa 18926
6. Robt Beaton	Long Lane RD2 Doylestown Pa 18901
7. John Duncan	116 STRAWBERRY CIRCLE LANGHORNE PA
8. Elsie Solano	State Park Rd. Pt Pleasant
9. Samuel & Solano	State Park Road Pt Pleasant
10. Frank	245 Aquetong Rd New Hope Pa 18938
11. Elsie H. Davies	412 Madison Hatboro (Town Property on Ferry Rd)
12. R Bergman	RD 2 Box 66 Upper Black Eddy

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

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	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1.	Genevieve Wolfinger	Potters Lane Pipersville RD 2
2.	Chester Wolfinger	Potters Lane, Pipersville R.D. 2
3.	Mary Jane Strunge	Stump Rd + Tohickon Hill, Pipersville, Pa
4.	Mary C. Lehrmann	" " "
5.		Stump + Tohickon Hill Rd Pipersville,
6.	Jane B Chem	" " " "
7.	E.D. Mac	Stump Rd. Pipersville, Pa. 6-8569
8.	E. Keckler	Stump Rd. Pipersville, Pa.
9.		Tohickon Hill Rd Pipersville Pa
10.	E. H. Fuhrt	TOLLGATE RD, PIPERSVILLE, PA.
11.	E. Nemethy	E. NEMETHY, PT. PLEASANT
12.	Charles Swift	TOLLGATE RD PIPERSVILLE PA

PETITION

12

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1. Ron Christman	Ron Christman P.O. Box 313 Pt. Pleasant
2. Kathy Walters	Kathy Walters Bx 195 Rodgers Rd Pipersville Pa
3. Richard Rohrer	Richard Rohrer P.O. Box 283 Pt. Pleasant, Pa
4. Diane Fox	Diane Fox P.O. Box 283 Pt. Pleasant, Pa
5. D. Hill	Shad Lane R.D. Pipersville, Pa.
6. P. Amodon	Shad Lane Pipersville, Pa
7. Ann Moyer	Ann Moyer Shad Lane rd Pipersville
8. Jeanne Bortmas	Jeanne Bortmas Shad Lane Pipersville
9. Larry Moyer	Larry Moyer Shad Lane Pipersville Pa.
10. Barry Claus	7 Shad Lane Pipersville Pa
11. Gail Claus	" " " "
12. Harry Bramhall	Point Pleasant, Pa.

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13. Richard Forest	Richard Forst Telkgate Rd. Pipersville PA. 18947
14. William Mellyer	Bill Hellyer Groveland Rd Pipersville Pa. 18947
15. H Reed	Howard Reed RD#1 Pipersville Pa 18947
16. Ingrid Reed	Ingrid Reed RD#1 Pipersville, PA 18947
17. Alma Wickersham	Alma Wickersham R.D. 1 Pipersville Pa. 18947
18. John Core Jr	Bx 202 RD1 Pipersville Pa "
19. Harold Beeler	South Corner Pipersville Pa
20. Janet Beeler	" " " "
21. Patsy Ruthking	Patsy Ruthking Covered Br Rd Papersville. Pa.
22. John Kirk	" "
23. F Holler	Frank Holler Stump Rd 6-8314 Pipersville R.D
24. Iva Holler	Iva Holler "
25. Betty Gietzen	3 Stump Rd. Pipersville Pa.
26. Lisa Sanders	Stump Road, Pipersville, Pa.
27. RJ Hutcheon	Stump Road, Pipersville, Pa
28. RD Hutcheon	" " 1947.
29. R J Jaeger	Jaeger 1 + Schlentz Hill " "
30. J Scholten	Schlentz Hill Rd Pipersville

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

12

WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1. Betsy Lang	Pt Pleasant Pk Gardenville Pa
2. Jim Allison	Pt Pleasant Rk Gardenville Pa
3. Susan Allison	Pt. Pleasant Pk Gardenville Pa
4. Ronald Lamb	Pt Pleasant RK Gardenville Pa
5. Ted Bowman	" "
6. N/A	" "
7. Margaret Bowman	" "
8. Betsy Lang	" "
9. Cynthia C. DiMaio	Tohickon Hill Rd. Point Pleasant, Pa.
10. Dr. C. DiMaio	" " " " " "
11. A McKenzie	Pt Pleasant, Pa.
12. F. Winterstein	RD1, Box 206, New Hope, 18938

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPE 3

WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAL PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEA PUMPING STATION AND ITS CONSTRUCTION. WE URGE TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTE THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE T WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASAN PUMPING STATION.

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1. John Schuf	Groveland & Tollgate Rds
2. Palmer	Groveland Rd Pipersville
3. Elsie Bromley	Groveland Rd. Pipersville
4. Linda Yonnick	Wismer Rd. 7-8519 Pipersville
5. Dunbar	Wismer Rd Pipersville
6. Greg Dunbar	" " "
7. Lorraine Dunbar	Wismer Rd. Pipersville,
8. Don Newman	Groveland Rd Pipersville, Pa.
9. Robert Fluckenstein	RD 1 Box 206 New Hope Pa
10. Robert J	Box A 204 Point Pleasant Pk New Hope Pa. 18938
11. D W Dodd	McDade 297-8483 Pt Pleasant PK + Tollgate Rd 1
12. Lam C Myers	Pt Pleasant PK 7-8502 RD 1 Box 207B New Hope 18938

	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13.	Carol Rogers	223A Stump Rd. Pipersville Pa 18947
14.	Brad Rogers	" " " " " "
15.	David Foger	Schlentz Hill Rd. PIPERSVILLE PA 18947
16.	Louanne Foger	" " " "
17.	Charles H. Henry	Charles, Henry Schlentz Hill Rd Pipersville Pa 15947
18.	Alice Hilty	Box 240 Pipersville Pa 18947
19.	Phil Kilin	Box 240 Pipersville, Pa 18947
20.	Corinne Furst	Corinne Furst Pipersville
21.	Diana Foster	DIANA FOSTER Pipersville 18947
22.	Wm T. Kaprolat	RD1 PIPERVILLE PA.
23.	Mildred Kaprolat	MILDRED KAPROLAT PIPERSVILLE. PA.
24.	Edward A. Furst	Edward A. Furst, JR, RD#1, Tollgate Rd Pipersville, Pa 18947
25.	Mary Kruger	MARY KRUGER, Piperesville, Pa. 18947
26.	Raymond C. Kruger	Raymond C. Kruger Pipersville, Pa. 1894
27.	Edessa Wintrics	Edessa Wintrics, Point Pleasant, Pa. 1894
28.	James Shertzer	Plumsteadville Pa 18949
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PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

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WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1. [illegible] Sakovsky	Old Durham Rd Pipersville PA 18947
2. [illegible] D. O'Bannon	Box 95 Old Durham Rd. Pipersville, Pa. 18947
3. Robert Van Artsdalen	Box #94 OLD Durham R.D. Pipersville, Pa.
4. [illegible]	Box 94 old Durham Rd Pipersville, Pa.
5. James D. Stranger	Old Bethlehem Rd. Perkasie Pa. 18944
6. Mr. & Mrs. Clayton Detweiler	Pipersville, RD Pa 18947
7. Paul A. Yothers	108 N. Benner Ave. Perkasie, Pa 18944
8. Mildred Templeton	Box 71 Gardenville Pa. 18926
9. Harry Templeton	Box 71 Gardenville PA. 18926
10. Jose Durham	Box 128 Danboro Pa.
11. Mary Leidenon	P.O. Box Dublin Pa. 18917
12. Peter Tiedeman	

	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13.	William R Schutt	Curley Hill Rd. Doylestown Pa. 18901
14.	Mark Brunner	STUMP RD. PIPERSVILLE, PA. 18947
15.	Judie Brunner	STUMP RD. PIPERSVILLE, PA. 18947
16.	Bob Hepner	STUMP & WISMER PIPERSVILLE 18947
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PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

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	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1.	Walt Krzyzanski	235 STUMP RD WALTER V KRZYZANSKI
2.	Jacalyn Krzyzanski	235 Stump Rd Pipersville, PA. 18947
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SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13. H. Mittelstadt	HARRY M. MITTELSTADT BOX 59 PLUMSTEADVILLE PA
14. Don Thomas	DONALD G THOMAS BOX A448 Plumsteadville, Pa.
15. Sharon Thomas	Sharon Thomas Box 448, Plumsteadville, Pa
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SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13. Hannah J.	Brankall. Rt Pleasant
14. Hilde Philipp	Tomichon Mill Rd. Pipersville
15. [illegible]	[illegible]
16. Judy Ruskin	Judy RUSKIN RD1 PIPERSville
17. Joan Walkenig	JV Volkening RD1 Box201 Pipersville
18. Sarah Grove	Kings Island, Pt. Pleasant, Pa
19 Bradford Grove	Kings Island Pt Pleasant Pa
20. Adam P Krick	Box 155 Danboro Pa.
21. Mary D Krick	Box 155 Danboro, Pa 18916
22. [illegible]	Box 278 Danboro, Pa 18916
23. Heidi	Box 132 Danboro Pa 18916
24 Henry Hussey	Danboro Pa 18916
25. Karen Heb	Danboro, Pa 18916
26. Barbara Gro	Danboro, Pa. 18916
27. Dara Knechel	Danboro Pa. 18916
28. Richard Long	Danboro Pa 18916
29. Jen Long	Danboro Pa 18916
30. Brenda Long	Danboro, PA 18916

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13.	R. Leishman - RD4 Doylestown Pa 18901
14.	R. Linson RD4 Doylestown Pa 18901
15.	old Easton Road RD#4 Doylestown, Pa. 18901
16.	RD4 Doylestown Pa
17.	Pebble Hill Rd RD#4 Doylestown Pa 18901
18.	Pebble Hill Rd. Doylestown Pa. 18901
19.	Box 30 Danboro Pa - 18916
20.	Box 30 Danboro Pa - 18916
21.	4th Box 30 Danboro Pa 18916
22.	Box 30 Danboro Pa. 18916
23.	3rd Box 30 Danboro Pa 18916
24.	Box 30 Danboro Pa 18916
25.	Box 35 Danboro PA 18916
26.	Box 416 Danboro Pa 18916
27.	Box 416 Danboro Pa. 18916
28.	RD#5 Doylestown Pt. Pleasant PK. 18914
29.	RD#2 Doylestown, 18901
30.	BOX 213 DANBORO PA. 18916

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13. Kimberly Alps	Alps, Box 213, Danboro, Pa. 18916
14. [illegible]	JULIAN EUBANK P.O. BOX 112 GARDENVILLE, PENNA. 18926
15. Annette Masterson	ANNETTE MASTERSON PO Box 112 Gardenville PA 18926
16. Marguerite L. Nichols	Marguerite L. Nichols - Box 88 - Danboro, Pa - 18916 -
17. Daniel S Nichols	Daniel S Nichols Box 88 Danboro Pa
18. Diane Cole Ahl	Diane Cole Ahl Point Pleasant Pike Doylestown PA 18901
19. Kenneth E Ahl	Kenneth E AHL, Point Pleasant Pike, Doylestown Pa 18901
20. F. J. Rarig	F. J. RARIG, POINT PLEASANT PIKE, DOYLESTOWN, PA (1890)
21. Rena Mae Rarig	" " " " " " "
22. J. Geiger	J. E Geiger Pt. Pleasant Pike Doylestown, Pa.
23. E. Geiger	E. Geiger Pt Pleasant Pike Doylestown, Pa.
24 Pam Buono	P. Buono Pt. Pleasant Pike Doylestown, PA
25. Al Buono	A. Buono Pt. Pleasant Pike Doylestown PA
26. G. Chittick	G. Chittick Pt Pleasant Pike Doylestown Pa.
27. Robert Chittick	Robert Chittick Pt Pleasant Pike Doylestown, Pa.
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SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13. Mary B Myers	R.D. Pleasant Peke New Hope
14. Pauline May	R.D. 1 New Hope
15. Raymond Hunter	Box 178 Pipersville Pa.
16. Ella Mae Myers	Gardenville, Pa 18926
17. Doris R Darling	Gardenville Pa 18901
18. Ellen E. Rewalt	Gardenville Pa 18901
19. Chester Coy	Gardenville Pa. 18926
20. Harris Fishkin	Gardenville Pa 18926 Harris Fishkin
21. Tom Pat	Gardenville Pa 18926
22. Joe Sweigart	Gardenville Pa 18926
23. Joseph Bilbay	Gardenville Pa. 18901
24. Helen J. Bilbay	" " 18901
25. Mary Alexander	" " 18926
26. Donna Shelenberger	Gardenville, Pa 18926
27. Wendy Sabatelli	Gardenville, Pa
28. Florence Mill	Gardenville. Pa 18926
29. Mary E. Tabb	Gardenville Pa. 18926.
30. Claire Brown	Ft. Pleasant Pk. Gardenville, Pa. 18926

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13. Ruth Keller	Gardenville, Pa. 18926
14. Michael Lawrence	BOX 106 GARDENVILLE PA. 18926
15. Pat Deke	R 319 Gardenville PA 18926-0319
16. Bob Harris	Apple Butter Rd. Perkasie
17. Jonathan Davenport	Pt. Pleasant Pike - Doylestown Pa. 18901
18. Mary Davenport	Pt. Pleasant Pk - Doylestown, Pa. 18901
19. JONATHAN DAVENPORT	" " " " "
20. Betty Schott	Gardenville Pa 18926
21. Grace Detweiler	Gardenville, Pa. 18926-0070
22. A. Horace Michener	Gardenville Pa 18926
23. Rosecilla	Michener Gardenville pa 18926
24. Anne Bullock M.s. + M.s.	Anne Bullock Point Pleasant Pike, Gardenville, Pa. 18926
25. Grover Cramer	Pt. Pleasant Pike Gardenville
26. Donna Brubaker	Pt. Pleasant Pike, Doylestown 18901
27. Linda McElhaney	Stump Road Pipersville Pa 18947
28. Miriam Morgan	Curly Hill Rd. Doylestown RD5 Pa
29. Lisa A Geiger	Curly Hill Rd. R.D. #5 Doylestown, Pa. 18901
30. John H Geiger	Curly Hill Rd R.D. #5 Doylestown, Pa. 18901

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1.	[illegible] Pt Pleasant Stop Pipersville Pa
2. Kathleen Mangle	Box 14 Pine Hill Farm Pipersville PA
3. Ray Smith	"
4. Debra Hawk	pt pleasant pike Gardenville
5. Connie Mosiondz	Pt. Pleasant pike Gardenville
6. PETER MOSIONDZ	Pt. Pleasant Pike Gardenville
7. Victor M[illegible]ski	Pt Pike Gardenville
8. Stella S. Kominski	Pt. Pike Gardenville, Pa.
9. Kathy Heakin	Pt. Pleasant Pk. Gardenville
10. Frank Browning	PT PLEACANT PK PA.
11. Joseph Pellino	Box 133 Gardenville, Pa 18926
12. Marie Lawrence	Box 106 Gardenville, Pa 18926

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

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SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1. E Cardelli	E CARDELLI P.O.Box 326 Plumsteadville Pa.
2. H. Erwin	H. Erwin P.O. Box 155 " "
3. J Ferris	J. FERRIS P.O. Box 514 " "
4. J Reger	J. Reger P.O. Box 54 " "
5. D J Boyle	D J. Boyle P.O.Box 544 " "
6. Jane Roman	JANE ROMAN Plumsteadville, Pa.
7. Joseph Roman	JOSEPH ROMAN PLUMSTEADVILLE. PA
8. Kevin Labs.	Kevin Labs. Plumsteadville Pa.
9. Brooke Labs	BROOKE LABS Plumsteadville Pa.
10. Vicki Schandel	Vicki Schandel Plumsteadville PA.
11 D Torres	DARIO TORRES Plumsteadville Pa
12. N. Mittetstedt	Box 59 PLUMSTEADVILLE, PA.

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

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SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1. Eleanor Wilhelm	Bergstrom Rd. Doylestown, Pa
2. Betty Bethke	" "
3. Arlene Baird	Burnt House Hill RD 4, Doylestown Pa
4. Louise Forte	Burnt House Hill RD 4, Doylestown Pa
5. Lizzie Stevens	Burnt House Hill Rd. Doylestown Pa
6.	" "
7. Herman E. Heydlauf	" " PO Box 34 Danboro Pa. 18916
8. Wilda Heydlauf	Burnt House Hill Rd
9. Mrs Robt Johnson	Burnt Hse Hill Rd, Danboro pa 18916
10. Robert Johnson	" " " " "
11. Mrs Ruth Sanford	RD 1 Box 203 Pipersville Pa. 18947
12.	

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13. Florence Kallstch	RD1 Pipersville Pa. 18947
14. Lorraine Thomas	RD#1, Box 27-A, Stump Rd, Pipersville, PA 18947
15. Robert W Thomas	RD1 Box 27A Stump Rd Pipersville Pa 18947
16 Barbara Hicklin	RD1 Stump Rd Pipersville, Pa 18947
17. J M Hicklin	" " "
18 Dawn Abecke	Box 25 Pipersville Pa 18947
19. Harry Knight	Landisville Road R.D. 4 Doylestown
20. Miriam Knight	" " " "
21. Erica Burnie	BYRNIE Landsville Road RD4 Doylestown
22. Judy Tiedeman	Landsville Rd, RD4 Doy
23 George Kelly	Landsville Road, RD 4, Doylestown, Pa. 18901
24. Mrs. Dennis Pickering	Landisville Rd. RD 4 Doy
25. A Dawn Pickering	Landisville Rd. RD4 Doy.
26. Frank Post	Landisville Rd RD4 Doylestown
27. Frank Hill	Landisville Rd RD4 Doylestown Pa
28. [illegible]	LANDISVILLE Rd RD#4 DOYLESTOWN Pa.
29. Paul E. [illegible]	LANDISVILLE RD RD4 DOYLESTOWN, PA.
30 Anne R Paulovitz	Paulovitz " " " "

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13. Mrs H. Sharp	Helen Sharp - R.D 5 Gayman Rd. Doylestown, Pa.
14. Leon C. Sharp	LEON C. SHARP - R.D. 5 GAYMAN Rd. DOYLESTOWN, PA
15. Stanley H Bickel	STANLEY H. BICKEL RD 5 GAYMAN RD DOYLESTOWN PA
16. Esther I. Bickel	ESTHER I BICKEL RD 5 Gayman RD. Doylestown Pa.
17. Crilda M Milnor	CRILDA M MILNOR RD 5 GAYMAN RD DOYLESTOWN PA
18. John J Milnor	John J Milnor RD 5 Gayman Road Doylestown
19. James D Fraser	James D. Fraser, Box 70, Danboro, PA 18916
20. Ellen Fraser	Ellen M. Fraser, Box 70, Danboro, Pa. 18916
21. Wendy G Barber	WENDY G BARBER RD #5. Doylestown Pa 18901
22. Robert G Barber	Robert G. Barber RD #5 Doylestown, Pa 18901
23. Betty Ann Mahler	Betty Ann Mahler, Box 76, Danboro, Pa. 18916
24. Robert A Mahler	Robert A. Mahler, Box 76, Danboro Pa. 18916
25. Carin Froehlich	Carin Froehlich RD #5 Doylestown Pa 18901
26. Dietrich E Froehlich	DIETRICH E FROEHLICH RD #5 Doylestown, PA 18901
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PETITION

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TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

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SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1. Wendy Magargal	Wendy Magargal Box 113 Meeting House Rd. Plumsteadville
2.	DAN BENDER RD#5 VALLEY PARK RD DOYLESTOWN, PA 18901
3.	Box 138 Rt 2 Pipersville PA 18947
4.	Schlenty Hill Rd Pipersville Pa 18947
5.	Schlenty Hill Rd Pipersville Pa 18947
6.	Schlenty Hill Rd Pipersville 18947
7.	" " Pipersville 18947
8.	" " " "
9.	Box 235 Pt Pleasant Pa 18950
10.	Box 33 Point Pleasant Pa 18950
11.	Box 33 POINT PLEASANT, PA 18950
12.	

	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13.	Donald Cooney	RD5 Valley park Rd.
14.	Linda M Adams	Ridgeview Dr
15.	Joseph Smith	RD#5 Doylestown Pa
16.	Wm Buchanan	~~Ft~~ Swaggen Rd Point Pleasant
17.	P. Linder	Box 48, Danboro, PA
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PETITION

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TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1. C Anderson	Box 58. Point Pleasant Pa 18950
2. I Anderson	Swagger Rd Pt. Pleasant Pa 18950
3. J M Anderson	" " " "
J. B. Kemble	Ferry Rd., Pt. Pleasant, Pa.
5. Sonja Selby-Lyle	Ferry Rd. Pt. Pleasant Pa.
6. A B Chris	J. Chris Ferry Rd Pt. Pleasant Pa
7. M.S. deVries	59 Watchung Ave, Montclair, NJ 07043
8. Kay Bodine	River Road, Pt Pleasant Pa. 18950
9. [illegible]	Box 155 Point Pleasant Pa 18950
10. Jo Helper	Box 155 Pt Pleasant Pa 18950
Hatten & Jessica PEARSON	1 1 1
Chris & Dan 12. Tiny Gould	Curly Hill Rd R.D.5 Doylestown Pa 18901

	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13.	William J Wells	Box 313 Wismer Gardenville Pa
14.	Elizabeth Wells	Box 313 Wismer Rd Gardenville Pa
		GARLICK 7-8568
15.	Sidney Garlick	Box 44 Wismer Rd. GARDENVILLE, PA
16.	R Glenn.	BOX 99 Wismer Rd. R1 Pleasant Pa
17.	C. Waibel	Wismer Rd Pipersville PA
18.		P.O. 176 CARVERSVILLE PA
19.		
20.	Mary Kulka	Box 124 Wismer Rd Pipersville, Pa.
	Marge	
21.	Sayler	Box 123 Wismer Rd., Pipersville, Pa. 18947
	Hy &	
22.	Nelson	Box 123b Wismer Rd, Pipersville, Pa. 18947
	Robin	
23.	Camburn	RD#1 Box 213 New Hope Pa, 18938
	Richard	
24.	Beaver	RD#1 Box 213 New Hope Pa. 18938.
	Betty	
25.	Hogue	Box 144 Pipersville, Pa. 18947
26.		
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PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

12

WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1.	Gloria Peterson	Gloria Peterson Box 5, Gardenville, Pa. 18926
2.	Karen Stough	Karen Stough Box 36 Gardenville Pa 18926
3.	Wendy Bender	WENDY BENDER VALLEY PARK RD RD 5 DOYLESTOWN
4.	Kenneth Wilt	Pt. Pleasant Pt. Gardenville, Pa. 18924
5.	Robert Ward	Upper Plumstead Church Rd Perkasie
6.	Jeannie Bauman	JEANNIE BAUMAN R.D. 1, Box 213 NEW HOPE, PA 18938
7.	Robert Bauman	ROBERT BAUMAN " " "
8.	[illegible]	PO Box 404 Point Pleasant, PA
9.	[illegible]	Biddeford Circle, Doylestown, PA
10.	Harry R. Tull	HARRY R. TULL - FERRY RD R.D. #2 DOYLESTOWN, PA
11.	J Wisem	Pt Pleasant, Pa. 18950
12.	Sue Foley	Ferry Rd. Point Pleasant

PETITION

11

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1.	K. Feindt	RD#1 Box 146-A Pipersville, PA 18947
2.	J H. Feindt Sr	Geddes Run Farm - Wismer Rd Box 147 Pipersville Pa 18947
3.	Shelly Goldfish	210 Stumps Rd Pipersville Pa 18947
4.	Marilyn Goldfish	210 Stumps Rd Pipersville Pa 18947
5.	[illegible]	Po Box 463 Stumpd Pipersville Pa 18947
6.	[illegible]	Athens RD1 Box 25 Pipersville Pa 18947
7.	Suzanne Joyce	145 Wismer Rd Pipersville Pa 18947
8.	[illegible]	Centerville Pa
9.	J. Eckert	Stump Road Pipersville, Pa. 18947
10.	Mary W Eckert	Stump Road Pipersville 18947
11.	M Hepin	RD1 Box 25B Pipersville Pa
12.		

PETITION

9

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1. Patricia J. Rivell	PATRICIA J. RIVELL RIVER & FERRY RDS PT PLEASANT
2. [illegible] Hood	STEVE HOOD FERRY & RIVER RD, PT. PLEASANT
3. Josephine Hoferica	JOSEPHINE HOFERICA RIVER ROAD POINT PLEASANT, PA.
4. Caitlin Massie	Caitlin Massie P.O. 273 Pt. Pleasant
5. Doug Pardorf	Doug Pardorf " " "
6. Jose R. Rivera	Jose R Rivera River Road Point PLEASANT
7. [illegible]	C. D. Bell Pt. Pleasant, Pa.
8. [illegible]	Dan Fitzgerald Conly Hill Rd
9. [illegible]	River Rd. Pt. Pleasant Pa.
10.	
11.	
12.	

	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13.	[illegible]	Nacha Abbott, Forest Grove, Pa 18922
14.	Adam Winterstein	~~New Hope 18938~~ Box 206 New Hope 18938
15.	J. Wood	Pt. Pleasant Pk. Doyles. 18901
16.	J. Merkel	Box 180 RD#1 New Hope Pa
17.	J. Tolan	Box 138 RD#2 Pipersville, Pa.
18.	Sue Wenner	Box 224 Pt. Pleasant, Pa
19.	[illegible]	[illegible]
20.	M. Holl, Odell	Pt Pleas. Pike Danboro
21.	Carol Joann	Buckingham (PA)
22.	[illegible]	[illegible]
23.	J. Brown	Box 196 Mechanicsville Pa
24.	Theresa Wright	Hendersville, Pa 18926
25.	Stuart Montgomery	Stewart Montgomery P.O. Box 198 RD 1 New Hope Pa 18938
26.	Wendy Hirst	Pipersville, Pa. 18947
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PETITION

12

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1. Judith B. Philbrick	JUDITH B. PHILBRICK, BOX 93, CARVERSVILLE, PA
2. Joseph Underwood	P.O. Box 177, Carversville (Underwood)
3. Elizabeth Sybel	P.O Box 177, Carversville (Sybel)
4. Pat Oberlender	R.D. #2. Doylestown, PA. 18901 (PAT OBERLENDER)
5. Donna L. Sidelinker	Donna L. Sidelinker Wismer Rd R.D. 2 Doylestown Pa 1890 (Sidelinker)
6. Judith L. Schwab	RD #2 Wismer Rd, Doylestown Pa. 18901 (Schwab)
7. Carl Schwab	RD #2 Wismer Rd Doylestown Pa 18901 (Schwab)
8. Nancy Lupp	RD 1 New Hope Pa 18938
9. Robert Miller	Box 12 Gardenville Pa 18926
10. Mrs. Robert Miller	Box 12 Gardenville Pa 18926
11. [illegible] Hoag	Box 215A New Hope Pa. 18938
12. E. Fratrik	Point Pleasant Pa 18950

PETITION

10

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1.	Graham Kinsman	Box 357 RIVER ROAD, PT. PLEASANT
2.	Michele C Kinsman	MICHELE C KINSMAN, BOX 357 RIVER ROAD POINT PLEASANT
3.	E. C. Gallas	E. C GALLAS Box 450 Pt. PLEASANT, PA 18950
4.	Nesta M Gallas	NESTA M GALLAS Box 450 Pt PLEASANT PA 18950
5.	Frank Plichta	FRANK PLICHTA PT Pleasant Pa 18950
6.	Dorothy & Jerry Newton	Newton - River Rd. - Pt. Pleasant - Pa 18950
7.	Robert W. Swan	P.O. Box # 434 Point Pleasant, Pa. 18950
8.	Virginia Swan	River Rd Pt. Pleasant Pa. 18950
9.		" " " " "
10.		" " " — — —
11.		
12.		

	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13.	Robert O Reif	Box 116 Danboro Pa 18916
	Hazel Graeber	Box 312, Danboro Pa 18916
15.	[illegible]	46 Circle [illegible] Pa [illegible]
16.	Laura Hancock	Box 121 Danboro, Pa 18916
17.	Al. Romig	P.O. Box 225 Danboro Pa. 18916
18.	Florence Hynd	P.O Box 211 Danboro. Pa. 18916
19.	Fred [illegible]	PO Box [illegible] DANBORO Pa 18916
20.	[illegible]	[illegible]
	EMMETT BROWN	BOX 73 FOUNTAINVILLE PA 18923 0073
22.	Arthur [illegible]	BOX 371 Danboro 18916
23.	[illegible]	Box 139 [illegible] Pa 18916
24.	Mr. Graff	30 Cedar Dr Danboro Pa 18916
25.	Mr & Mrs [illegible]	21 Cedar [illegible] Pa 18916
26.	Mr & Mrs Fox	35 Cedar Drive Danboro Pa 18916
27.	Mr & Mrs [illegible]	Brown P.O. Box 115 Danboro Pa 18916
28.	M J Green	BOX 107 DANBORO PA.
29.	Jay R Scales	JAY SCALES Box 266 DANBORO PA 18916
30.	Dale E Brown	Box 73 - Fountainville Pa 18923-0073

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1.		PO BOX 142 DANBORO 18916
2.		[illegible]
3.		PO Box 81 Danboro 18916 PA
4.		[illegible]
5.		[illegible]
6.		PO BOX 394 DANBORO PA. 18916
7.		[illegible]
8.		P.O. Box 324 Danboro Pa 18916
9.		P O Box 411 Danboro Pa 18916
10.		PO Box 176 Danboro Pa 18916
11.		PO Box 235 Danboro Pa 18916
12.		PO Box 235 Danboro Pa 18916

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13. Warren W. Landes	
14. Kate Cutlek	Box 134 Danboro, Pa 18916
15. [illegible]	Box 201 Danboro Pa 1891[illegible]
16. [illegible]	Box 283 Danboro Pa 1891[illegible]
17. [illegible]	Box 81 Danboro Pa 18916
18. [illegible]	" " " " "
19. [illegible]	Box 221 Danboro 18916
20. [illegible]	Box 107 Danboro Pa 1891[illegible]
21. [illegible]	Danboro Pa [illegible]
22. [illegible]	Box 104 Danboro Pa 18916
23. [illegible]	Box 461 Danboro Pa 1891[illegible]
24. [illegible]	Box 177 Danboro Pa 18916
25. [illegible]	Box 177 Danboro Pa 18916
26. [illegible]	Danboro Pa 1891[illegible]
27. Elizabeth Stalhouse	Danboro Pa 18916
28. [illegible]	Box 259 DANBORO PA 18916
29. Ronald Bean	Box 198 Danboro Pa 18916
30. [illegible]	"

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

12

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1.	PHYLLIS LE PO BOX 43 DANBORO PA 18916
2.	Carl Humphs p.o Box 161 plumsteadville pa 18949
3.	P.O Box 351 Plumsteadville PA 18949
4.	P. Box 71 Danboro Pa 18916
5.	P.O. Box 104 N. Easton Pa.
6.	P.O Box 356 Danboro Pa 18916
7.	P.O Box 97 DANBORO, PA 18916
8.	PO Box 62 DANBORO PA 18916
9.	P.O BOX 34 DANBORO Pa 18916
10.	PO BOX 34 DANBORO Pa 18916.
11.	Box 184 Plumsteadville, Pa 18949
12.	

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
[illegible] N. Cornillon	D. CORNILLON - P.O. Box 156 - Ft Pleasant Pa.
[illegible] Kolbe	P.O. Box 355 Pt Pleasant PA ED KOLBE
[illegible] Kolbe	P.O. Box 185, Pt. Pleasant, Pa. (RICHARD)
[illegible] Carnie	River Road. Pt Pleasant, Pa. 18950
[illegible] Williams	River Rd Pt Pleasant, Pa 18950
[illegible] Naughton	Edna Naughton Box 215 Ft Pleasant Pa
[illegible] Naughton	Jomamarie Naughton Box 215 Ft. Pleasant
[illegible] Naughton	Don Naughton Ft Pleasant Pike Ft Pleasant Pa
[illegible] Scott	GRACE D. Scott, RD#1 Groveland Rd. Pipersville, PA. 18938
[illegible] Morgan	ED. MORGAN RD#1 PT PLEASANT PK NEW HOPE PA 18938
[illegible] Kennedy	Patrick Kennedy RD 1 Ft Pleasant Pk New Hope PA 18938
[illegible] Polanecky	Barbara E. Polanecky New Hope Pa. 18938 Ft Pleasant Pike RD 1 Box 212
[illegible] Clothiers	William T. Clothiers New Hope PA 18938
[illegible] Rose	Albert Rose Ft Pleasant Pike Box 317 Gardenville Pa
[illegible] Rose	Margery Rose Box 317 Ft. Pleasant Pike Gardenville, Pa

CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
[illegible]	[illegible]
[illegible]	[illegible]
LeRoy V. Fire	LEROY V FIRE RD PT PLEASANT PA
Oscar Fire	Ferry Rd PT Pleasant Pa. BOX 147 18950
[illegible]	[illegible]
Nancy R. Tomlinson	NANCY C. TOMLINSON FERRY RD PT PLEASANT, PA. 18950
[illegible]	[illegible]
[illegible]	Lee UNKVH Cafferty Rd PT Pleasant
John Nelson	Box 34 Point Pleasant Pa
Ray Wenner	Box 173 Point Pleasant Pa
[illegible]	Point Pleasant Pa
Tom Nauss	PT. Pleasant
Terri Rickards	Box 57 Fountainville Pa 18923
Jay Norris	Jay Norris Third Line, Rocksville, Pa 18949
Linda Cambers	Ferry Rd Gardenville Pa 18926
Charles Cambers	" " " "
Stacy Dewey	Ferry Rd [illegible]

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)	
[illegible]	RD#1 Box 186 FERRY RD	Pt. Pleasant Pa.
Barbara Rusinko	RD #1, Box 186 Ferry Rd.	Pt. Pleasant, Pa.
[illegible]	R.D. 1, Box 189 FERRY RD.	Pt. PLEASANT, PA.
Gay Christy	Ferry Rd.	Pt Pleasant Pa.
[illegible]	Ferry Rd.	Pt Pleasant, Pa
[illegible]	Ferry Road	Pt. Pleasant Pa.
[illegible]	Ferry Rd.	Pt Pleasant Pa.
[illegible]	[illegible]	Penna
[illegible]	[illegible] Ferry [illegible]	Pt Pleasant Pa
[illegible]	Pt Pleasant Pa	18950.
[illegible]	Pt. Pleasant Pa	18950
[illegible]	[illegible]	[illegible]
[illegible]	[illegible] Road Pt PLEASANT PA	18952
[illegible]	River Road	Pt. Pleasant PA 18950
[illegible]	[illegible]	[illegible]

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
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	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
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SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13.	
14. Patty Mullen	PATTY MULLEN - SAME AS ABOVE
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SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13. George R Shaver	GEORGE R. SHAVER BOX 275 PLUMSTEADVILLE 18949
14. Eleanor R Shaver	ELEANOR R. SHAVER Box 275 PLUMSTEADVILLE, Pa 18949
15. Curt Cooperman	CURT COOPERMAN RT611 AND STUMP RD PLUMSTEADVILLE PA 18949
16. Wayne Richards	WAYNE RICKARDS BOX 57 FOUNTAINVILLE PA 18923
17. Michael Hagelis	P.O. Box 509 Plumsteadville, Pa. 18949
18. Robert Gallo	Solanty Hill Rd Doylestown, Pa 18947
19. [illegible]	[illegible] Stump Rd Plumsteadville Pa 18949
20. [illegible]	STEPHEN GRAY BOX 13 PLUMSTEADVILLE PA
21. [illegible]	[illegible] Plumsteadville Pa.
22. [illegible]	[illegible] Plumsteadville Pa.
23. [illegible]	[illegible] Dr Plumsteadville PA
24. [illegible]	[illegible] Dr Plumsteadville, PA. 18949
25. [illegible]	[illegible] 502 Plumsteadville, Pa 18949
26. Michael Blewitt	[illegible] Box 85 Stump Rd.
27. Charles Lacey	[illegible] Box 85 Stump Rd
28. [illegible]	[illegible] Rt. 611 Stump Rd Plumsteadville, Pa 18949
29. Irene L Conrad	BOX 161 Stump Rd Plumsteadville Pa 18949
30. [illegible]	BOX 85 STUMP RD. PLUMSTEADVILLE PA 18949

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
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PETITION

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SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1.	
2.	
3.	
4.	
5. Bertha L Fahnan	Plumsteadville, Pa. 18949
6. Robert Mrs. Margo	Plumsteadville, Pa. 18949
7. Paul Drevin	Plumsteadville Pa 18949
8.	
9. Ruth Honer	G. Ruth Honer Rt #2 Box 110 Pipersville, Pa
10. Paul P. Hinterlang	Paul P. Hinterlang Stump Rd Box 105 RR 2 Pipersville, PA, 18947
11.	P O Box 9 Stump Rd Ann Amick - Anne Chalfont Pa 18947
12.	Box 107 RD#1 Stump Rd Penwell Pa 18947

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
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SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13. E Schreffler	ELWOOD SCHREFFLER, R.D.1, Box 51A, PIPERSVILLE
14. R Myers	RICHARD MYERS, BOX 165 PIPERSVILLE
15. G Myers	GRACE MYERS, BOX 165, PIPERSVILLE
16. [illegible]	[illegible]
17. [illegible]	Rte 413 [illegible]
18. [illegible]	Route 413 [illegible]
19. [illegible]	Route 413 [illegible]
20. [illegible]	[illegible]
21. [illegible]	[illegible]
22. [illegible]	[illegible]
23. [illegible]	[illegible]
24. [illegible]	Box 195 [illegible]
25. [illegible]	[illegible]
26. [illegible]	[illegible]
27. Linda Lee Williams	Box 276, [illegible]
28. [illegible]	RR#1 box 15 [illegible] (Brunstead Twp)
29. [illegible]	Box 465 [illegible]
30. [illegible]	Box 78, [illegible]

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1.		Robert M. Schantz R.D. 3 154 Ft Pleasant, PA 18950
2.		Jonathan D. Scott RD 1 Broadhead Rd Pipersville, Pa 18947
3.		
4.		
5.		
6.		
7.		
8.		
9.		153 175 Point Pleasant Pa
10.		204 Tohickon Hill Rd Pipersville
11.		Box 175 Point Pleasant Pa. 18950
12.		Third Lane Pipersville, Pa 18947

	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13.	Elmer O Strouse	ELMER O STROUSE DANBORO PA
14.	Verna Angeny	VERNA ANGENY, DANBORO, PA.
15.	Ruth Baum	RUTH BAUM Doylestown RD 5
16.	Clara Harstine	CLARA HARSTINE PLUMSTEADVILLE PA
17.	Lou Tenaglia	Lou Tenaglia P.O. Box 353 Danboro, Pa. 1891
18.	Linda Tenaglia	Linda Tenaglia P.O. Box 353 Danboro, Pa. 18916
19.	Barb McMonagle	Barb McMonagle RD#5 Doylestown, Pa 18901
20.	Sandy Landes	Sandy Landes PO Box # 543
21.	Steve Landes	Steve Landes Plumsteadville Pa 18949
22.	Marjorie Melcher	MARJORIE MELCHER DANBORO, PA 18916
23.	R Kirk Myers	R. KIRK MYERS RD 5 Doylestown PA 18901
24.	James B Todd	JAMES - Todd. Box 24 PLUMSTEADVILLE
25.	Charlotte Todd	Charlotte Todd Box 24 Plumsteadville Pa 18949
26.	Bessie H. Risko	Bessie H RISKO Box 154 " "
27.	Lester Risko	Lester RISKO " " "
28.	Frank Sharp	FRANK SHARP RD 5 old Easton Rd Doylestown Pa. 18901
29.	Mary Sharp	MARY SHARP RD 5 old Easton Rd Doylestown Pa 18901
30.	Margaret M Sharp	Margaret M Sharp RD 5 Old Easton RD Doylestown Pa 18901

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

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WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1. Karla Axelson	Karla Axelson Old Easton Rd, Plumsteadville, PA.
2. Michael J. Johnson	Michael J. Johnson, P.O. Box 342 Plumsteadville, PA 18949
3. Sasha Marohn	Box 61, Plumsteadville, Pa. 18949
4. Peter M Penning	Box 144 Plumsteadville Pa 18949
5. Marie Penning	Jane
6. Roy Trucksess	Box 172 Plumsteadville Pa
7. Eileen Bardwell	Box 172 Plumsteadville, Pa 18949
8. Bruce Angeny	Bruce Angeny Box 184 Danboro PA 18916
9. Lillie F Winton	Lillie F Winton Box 184 Danboro, Pa. 18916
10. Richard Winton	RICHARD WINTON
11. John David Roberts	JOHN DAVID ROBERTS, JR. OLD EASTON ROAD, P.O. BOX 403, PLUMSTEADVILLE, PA 18949
12. Alan Bleam	ALAN BLEAM Box 188 HARING ROAD PLUMSTEADVILLE, PA 18949

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13. Irene Merkel	Irene MERKEL OLD FERRY RD. PT PLEASANT
James E. Farrell	" "
14. FARRELL	
15. George Booz	Ferry Rd., Point Pleasant 18950
16. Raymond E Booz	" " " " 18950
17. Val Singleton	Ferry Road Point Pleasant 18950.
18 A B Church	Ferry Rd Pt. Pleasant, 18950
19. M. Stoh	Ferry Rd Pt. Pleasant 18950
20. J Stoh	Ferry Rd. Pt Pleasant, 18950
21. Glenn Buchanan	Pt Pleasant. BOX 135 18950
22. Cravano	Pt Pleasant BOX 373 18950
23. Cravano	Pt Pleasant Box 373 18950
24 E Dale	Ferry Road, Pt. Pleasant 18950
25. S. Schumacher	Ferry Rd. Pt. Pleasant 18950
26. D Schumacher	Ferry Rd Pt Pleasant 18950
27. Ellen Jones	Ferry Rd Pt Pleasant 18950
28. William J Kleve	Ferry Rd Pt Pleasant 18950
Chas Schweitzer Sr	Ferry Rd Pleasant Pa
Mrs Anna E	Schweitzer

	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13.	Thomas R Anderson	Temple Ct Court Clement
14.	John J Kelly	River Rd Pt Pleasant Pa
15.	Linda Metzger	River Rd, Pt. Pleasant, Pa
16.	Pat McDonough	River Rd. Pt. Pleasant Pa
17.	Barbara Pressler	River Rd., Pt. Pleasant, Pa.
18.	Linda Gillette	River Rd., Pt. Pleasant, Pa.
19.	Leah Jones	River Rd Pt. Pleasant, Pa.
20.	Mary Lou Lear	30 E. State St Doylestown Pa
21.	Betsy Jones	Box 431 Pt. Pleasant Pa
22.	James Dushin	104 Jefferson Ct Q-town
23.	Robin Blanchard	106 Jefferson CT. Q-Town
24.	Virginia Wakefield	65 Hatchboro Ave, Yardley
25.	Thomas Otta	350 W. Trenton ave Morrisville Pa 19067
26.	Karen Delecky	12617 Dunks Ferry Road Phila. Pa. 19154
27.	Phil Mengelis	5267 Ponyway st Phila Pa 19124
28.	Bruce Morgan	9950 Bustleto Phila Pa 19115
29.	Mike Butterini	Box 177 Pt Pleasant Pa. 18950
30.	Margo Straats	Box 56 Pt. Pleasant Pa 18950

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

13

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1. Fred Hom. [illegible]	Swagger Rd & Tolgate
2. Skp Meyer	" " & Tolgate
3. Atemi Hammerstein	" " & Tolgate
4. Virginia Demory	Swagger Rd + Hallgate Rd
5. [illegible] Demory	Swagger Rd Solebury
6. James F. Boos	Swagger Rd Ft Pleasant, Pa
7. Frank Kallash	Swagger RD. Ft Pleasant Pa.
8. [illegible]	BOX 47 PT PL. PA. SWAGGER
9. A. C. Mumbly	Swagger Rd. Ft. Pleasant Pa.
10. Kathleen Shearing	Swagger Rd Pleasant. 997-8154
11. Edna R. Harman	Ferry Rd Pt. Pleasant, Pa
12. C. A. Hagood	Ferry Rd Ft. Pleasant, Pa
13 Ernest Hofferica	River Rd Ft. Pleasant Pa.

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

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12

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1. John Davis	John Davis Box 3 RT 611 Plumsteadville Pa.
2. Dorothy Evan Elliott	Dorothy Evan Elliott
3. Neil E Ellenoff	Neil E Ellenoff Box 245 Pt Pleasant PA
4. A. Ference	A. Ference Box 24 Pt Pleasant, Pa.
5. John Ference	John Ference " "
6. Jonathan Ference	Jonathan Ference " "
7. Greg Bergere	GREG BERGERE W. ASHLAND DOYLESTOWN
8. Steven R. Snyder	Steven Snyder PO Box 313 Pt Pleasant, PA
9. Leo Billa	River Rd. Pt. Pleasant PA 18950
10. Joe 9, 9L10	Old Ferry Road Pt. PLEASANT PA.
11. Ann M Billa	River Rd. Point Pleasant Pa.
12. Anita Allen	Old Ferry Rd. Pt Pleasant PA

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

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12

	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1.	Elaine S. Restifo	ELAINE S. RESTIFO BOX 312, PT. PLEASANT, PA. 18950-0312
2.	Ted W Czupich	RD#1 CZUPICH New Hope, Pa. 18938
3.	Patricia L. James	R.D#1 JAMES Box 163C New Hope, Penna 18938
4.	David Samsel	SAMSEL Box 163-1 NEW HOPE PA.
5.	BOB MAYER	MAYER RD2 DOYLESTOWN, PA 18901
6.	Robert Pitrone	PITRONE RD2 Doylestown Pa 18901
7.	Lawrence Pitrone	PITRONE R D 2 Doylestown Pa. 18901
8.	Larry Pitrone	PITRONE RD#2 Doylestown Pa 18901
9.	Linda Barratt	BARRATT RD #1 Box 163A New Hope, Pa 18938.
10.	Susan Wulf	RD#2 Doylestown, Pa. 18901 WULF
11.	Jim Wulf	RD#2 Doylestown Pa. 1890 WULF
12.	Paul Canasse	Visner Rd., Canesville, Pa 18913 CANASSE

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

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SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1. Ann C Burns	Groveland Rd Pipersville, Pa. 18947
2. Stephen Rau	Groveland Rd Pipersville PA 18947
3. Dian Reed	" "
4. Jane Hallman	Groveland Rd Pipersville, Pa. 18947
5. William J Hallman	" " " " "
6. Mildred Fillman	Wismer Rd Pipersville Pa 18947
7. Carl Hommel	RD#1 Wismer Rd Pipersville Pa 18947
8. George Kalkstein	pipersville pa RD#1 18947
9. Sharon Thome	P.O. Box 274 Ft. Pleasant Pa 18950
10. Sandra J. Train	Box 181, Carversville, Pa. 18926
11. Sharon Kull	RD#1 Box 79, Pipersville, PA. 18947
12. Anne Fitzgerald	Box 52 RD1 Pipersville Pa 18947

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

12

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SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1. Diane Roussell	Diane Roussell RD#1 Silo Hill Rd.
2. Vera Peterson	~~Vera Peterson Box 5, Gardenville, Pa.~~
3. Flora Gayman	Flora GAYMAN RD#5 Doylestown Pa
4. R.D. Gayman Jr.	Gayman Rd. RD#5 Doylestown
5. R.D. Gayman	GAYMAN RD. RD#5 DOYLESTOWN, PA. 18901
6. Kathy Dubyk	Gayman Rd. RD#5 Doylestown Pa
7. Dan Dubyk	" "
8. Matt Dubyk	" "
9. John Dubyk	" "
10. Joe Dubyk	" "
11. Alice Fahie	" "
12. Eileen Paines	" "

PETITION

12

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	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1.	Evelyn Aherne	Evelyn Aherne Box 25 R.D#1 Pipersville PA 18947
2.	Patricia A Petzold	PATRICIA A PETZOLD R01-24A CARVERSVILLE RD Pipersville, PA. 18947
3.	Joseph P Kelly Jr.	Wismer Rd Pipersville Pa 18947
4.	Patricia Lee Edwards	Wismer Rd. Pipersville, Pa 18947
5.	Peter Edwards	Wismer Rd., Pipersville, Pa 18947
6.	Maureen Harvey	Box 14A Pipersville Pa 18947
7.	Edward Harvey	Box 14A Pipersville, Pa 18947
8.	Jane A. Brown	RD#1 Box 150 Pipersville, Pa. 18947
9.	Patty Miller	Box 146 Pipersville Pa. 18947
10.	Mary Ellen Lofgren	Box 208 " " "
11.	Hugo Bukovsky	Box 234 " " "
12.	Gloria Bukovsky	Box 234 Pipersville Pa 18947

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13. Martin Brown	Martin Brown RD1 Box 150 Pipersville, Pa.
14. John F Walker	JOHN F. WALKER WHITE TAIL RUN, R.D.# 1, PIPERSVILLE, PA
15. Tom McKeown	Tom McKeown Box 187 RD# 1 Pipersville, Pa.
16. RD Seales	Groveland Rd Pipersville Pa
17. Jean G Phillips	Box 23 Steinner Rd. Pipersville
18. George W Boyer Jr	Box 67 Gardenville Pa 18926
19. Anna L Boyer	Box 67 Gardenville, Pa 18926
20. Brian Murphy Burn	Box 80 Gardenville PA 18926
21. Susan Silvestrini	Town Silo Road R.D. #2 Doyl. PA 18901
22. Helen Fitzgerald	Box 52 R.D.1 Pipersville, Pa. 18947
23. [illegible]	Pt. Pleasant Road & Moyer Rd, Doylestown, Pa 18901
24. Hazel N. Gantner	"Spicewood" Box 113, Pipersville Pa. 18947
25. Scott D. Rubach	Box 157 Groveland Rd. Pipersville Pa. 18947
26. Theresa C Rubach	Box 157 Groveland Rd. Pipersville Pa. 18947
27. Madi Emerson	Box 128 Buckingham Pa 18912
28. J. Glunn	Box 159-A GROVELAND Rd. Pipersville
29. McCluskey	Rt 1 Box 165 Pipersville Pa.
30. Thalia Schultz	Box 1167 - Groveland Rd. - R.1 Pipersville, Pa.

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13.	Valley Vista Trailer Park
14.	BEAUDETTE "
15.	WAHL Rt. 1 Box 182 Pipersville
16.	Box 122, Plumsteadville
17.	WERKHEISER Box 113 Plumsteadville Pa. 18949
18.	Box 68 Jacksonville Rd Ottsville Pa 1894[illegible]
19.	Box 283 Stump Rd Plumsteadville 18949
20.	HUMLHANZ Valley Park Rd. Doylestown, Pa. 18901
21.	Valley Park RD Doylestown Pa [illegible]
22.	Valley Park Rd Doylestown Pa [illegible]
23.	Valley Park Rd Doylestown Pa 18901
24.	Valley Park Rd Plumsteadville Pa. 18949
25.	[illegible] Doy Pa
26.	[illegible]
27.	Valley Park Rd RD #5 Doylestown Pa
28.	RUFF " "
29.	Valley Park RD RD #5 Doylestown Pa
30.	WALLIS Valley Park Rd - P.O. [illegible]

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13.	JANIS DAVIS Box 3 Plumsteadville
14.	Linda Meyers Box 422 Plumsteadville
15.	Box 344 Public Pa Borough (Plumstead)
16.	WILLIAM MAGARGAL BOX 311 MEETINGHOUSE RD. PLUMSTEADVILLE, PA.
17.	1135 N. Easton Rd. Doylestown, Pa. (Plumstead TWP) 18901 Resident) CAROL SPOKES
18.	P.O. Box 306 Stump Rd Plumsteadville
19.	PO Box 530 Plumsteadville
20.	P.O. Box 298
21.	7 POPLAR LN RD5 DOYLESTOWN, PA (Witthar, James (Plumstead Resident)
22.	WITTHAR, CATHY 7 Poplar RD 5 Doylestown PA (Plumstead Resident)
23.	MARY DOCKERY Rd 5 Doylestown Pa (Plumstead)
24.	(Donated) Plumsteadville PA
25.	MAGARGAL Box 311 meetinghouse road plumsteadville pa
26.	LUDWICK "Bellacres" Stump Rd. Plumsteadville
27.	HAMILTON "Bellacres" Marianne Hamilton P O Box 341 Stump Rd Plumsteadville
28.	BICKFORD PO Box 967 PLUMSTEADVILLE PA
29.	EXNER Box 34 Plumsteadville PA.
30.	

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

WE, THE UNDERSIGNED, RESIDENTS OF PLUMSTEAD TOWNSHIP, PENNSYLVANIA, OPPOSE THE PROPOSED POINT PLEASANT PUMPING STATION AND ITS CONSTRUCTION. WE URGE OUR TOWNSHIP OFFICIALS TO DENY ANY PROPOSAL TO ALTER THE ZONING ORDINANCE, OR TO ISSUE ANY VARIANCE THAT WOULD PERMIT THE CONSTRUCTION OF THE POINT PLEASANT PUMPING STATION.

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1. Ronald E Miller	miller Box 7 Plumsteadville Pa 18949
2. [illegible]	Cruss [illegible]
3. [illegible]	Doyle [illegible] (Plumstead Twp) Box [illegible] New Hope PA 18938
4. [illegible]	[illegible] (Plumstead Twp) [illegible]
5. [illegible]	[illegible] [illegible]
6. [illegible]	[illegible]
7. [illegible]	[illegible] (Plumstead Twp) [illegible]
8. [illegible]	[illegible]
9. [illegible]	Assessor [illegible] Box 1024 Doylestown (Plumstead Twp) 18901
10. [illegible]	Fetzold [illegible] Box 244 Carversville Rd, Pipersville Pa
11. [illegible]	[illegible] Carversville RD Pipersville Pa
12. [illegible]	[illegible] Carversville RD Plumstead PA

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

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	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1.	Joann Kice	Kice, Joann Box 435 Smithtown Rd. Pipersville
2.	Phil Turner	Phil Turner Box 268 Plumsteadville
3.	W. A. Goodwin	Stumpfd. "
4.	[illegible]	[illegible] Plumstead ville
5.	[illegible]	[illegible] Edward Brown
6.	Ken Henshaw	Hensha Plumsteadville Pa
7.	H. Peterson	Pipersville Pa Stumpfd. RR#1
8.	[illegible]	[illegible]
9.	[illegible]	Wm. Frankenfield Stumpf. Box 105 Plumsteadville
10.	[illegible]	Durham Rd. Pipersville Pa
11.	[illegible]	[illegible] Ck Ck Rds Church Rd. PO Box 515 Plumsteadville
12.	[illegible]	Mathias Box 3 [illegible]

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

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SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1. [illegible]	PO Box 41 Gardenville
2. [illegible]	[illegible] Box 57A Stump Road P 2815 ✓
3. [illegible]	[illegible] Plumsteadville Pa
4. [illegible]	HARMON BOX 2 PIPERSVILLE PA 18947 ✓
5. Richard A. [illegible]	HOLLE Box 223 Stump Road R.D. Pipersville Pa. 18947
6. Ronnie [illegible]	Box 4 Danboro, PA 18916
7. [illegible]	Box 48 Danboro PA 18916
8. [illegible]	MANRO R.D. #1 Stump Rd. Box 70, Pipersville Pa
9. [illegible]	Box [illegible] Moyer Rd, Pipersville, Pa. 18947
10. Brenda Young	RD#5 Stump Road Doylestown Pa 18901 (Plumstead Res)
11. [illegible]	Thompson P.O.B. 273 Danboro Pa 18916
12. [illegible]	Doyle [illegible] Road [illegible]

PETITION

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	SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
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SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1. Steve Pirmann	RD 5 Old Easton Rd Steve Pirmann
2. Donna Brehm	Donna Brehm
3. Edith Bender	Edith Bender RD#5 Old Easton Rd.
4. Denise Bender	RD 5 OLD EASTON ROAD, DOYLESTOWN, PA. 18901
5. Louise Hamilton	LOUISE HAMILTON RD#5 OLD 611 Doylestown, Pa. 18901
6. Lewis Hamilton	LEWIS HAMILTON RD#5 OLD 611 DOYLESTOWN, PA. 18901
7. Cheryl Good	Cheryl Good OLD 611 Plumsteadville, Pa. 18949
8. Katie Bradfield	Katie Bradfield P.O. Box 74 Plumsteadville Pa. 18949
9. [illegible]	JOSEPH BRADFIELD PO BOX 74 PLUMSTEADVILLE PA. 18949
10. Tom Hixson	TOM HIXSON RD 5 Doylestown
11. Bruce Bunch	Bruce Bunch 345 Plumsteadville Pa 18949
12. Paul R. Ely	PAUL R. ELY BOX 12, PLUMSTEADVILLE, PA. 18949-001

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13. Mrs Robert Sweet	Mrs. Robert Sweet Stump Rd Plumsteadville
14. Robert Sweet	Robert Sweet Stump Rd. Plumsteadville, Pa.
15. Mrs Betty Maust	Betty Maust Stump Rd. Plumsteadville Pa.
16. Mrs Janet Barlow	Janet Barlow Stump Road, Box 158 Plumsteadville, PA 18949
17. John Peck	John Peck * same
18. Robert Wm Barlow	ROBERT BARLOW same as above
19. Peggy Barlow	PEGGY BARLOW (SAME)
20. Ron Barlow	Ron Barlow Box 294 Plumsteadville, PA.
21. Tom Simon	Tom Simon P.O. Box 52 Plumsteadville PA. 18949
22. Jack Montgomery	P.O. Box 324 Plumsteadville 18949
23. Diana Scully	PO Box 324 Plumsteadville 18949
24. Jean Hestle	P.O. Box 309 PLUMSTEADVILLE, PA. 18949
25. Barry K Bauer	PO Box 99 Plumsteadville PA 18949
26. Earl Kentopp	Box 536 Plumsteadville Pa 18949.
27. Emma Frederick	5140 HILL RD. PLUMSTEADVILLE, PA. 18901
28. Esther Kentopp	PLUMSTEADVILLE, PA. 18949
29. Mary C Mann	Mary C. Mann Plumsteadville, Pa. 18949
30. George R Mann	George Mann Plumsteadville Pa 18949

PETITION

TO THE PLUMSTEAD TOWNSHIP SUPERVISORS

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SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
1. John P. Lamb Jr.	Jack Lamb Box 184 Plumsteadville Pa.
2. Elsie Mann	ELSIE MANN Box 34 Plumsteadville PA.
3. Alan Wismer	ALAN WISMER Box 283 PLUMSTEADVILLE, PA.
4. John C. Mann	STUMP RD PLUMSTEADVILLE, PA. 18949
5. Paul John	PAUL JOHNSON STUMP RD PLUMSTEADVILLE, PA 18949
6. Rose A Lutz	Rose Ann Lutz, Box 308, Plumsteadville, Pa.
7 Georgia L Johnson	Georgia Johnson Box 308, Plumsteadville, Pa. 18949
8. Grace M Huber	GRACE M. HUBER Box 238 Plumsteadville, Pa. 18949
9. Russell W. Huber	Russell W. Huber Box 238 Plumsteadville Pa. 18949
10. Janet E. Bleam	Haring Rd. Box 188 Plumsteadville, Pa. 18949
11. Richard Rush	RICHARD RUSH Haring Rd Box 68 PLUMSTEADVILLE 18949
12 Ethel H Rush	Ethel H Rush Box 68 Plumsteadville, Pa 18949-0068

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13. Kevin O'Rourke	Tohickon hill Rd Pipersville Pa 18947
14. Matthew Estell	tohickon hill Rd Pipersville Pa 18947
15. Jeffrey Hoffe	" " " "
16. [illegible]	" "
17. ~~[illegible] Smith Corner Pipersville~~	
18. Kevin D Hoult	Bx [illegible] Pipersville Pa
19. Florence Shaw	RD.4 Sandersville Rd Doylestown, Pa
20. [illegible] ~~Stastel~~ Strattel	4 John Dyer Way Doy
21. Joan Catalin	5 John Dyer Way Doylestown, Pa 18901
22. Mark Cosgrove	Bx. 201 RD#1 Pipersville Pa. 18947
23. Kenneth Schultz	Box 35, Danboro, Pa 18916
24. Marlene Fetcher	" " " " "
25. Nancy L Schultz	Box 35, Danboro Pa 18916
26. Jean Mohraes	Bergstrom Rd Doylestown Pa 1890[illegible]
27. Ed ~~Jusits~~ ED JUSITS	RD 5 Bergstrom Rd, DOYLESTOWN PA 18901
28. Janet Robinson	" " " " " "
29. Rita Campbell	" " " " " "
30. [illegible] Campbell (Campbell)	" " " " " "

SIGNATURE	NAME & ADDRESS (PLEASE PRINT)
13. John S Diehl	JOHN S. DIEHL, Box 92, DANBORO, PA
14. Lois Fish	LOIS FISH RD 5 Doylestown, PA 18901
15. Carol Brooks	CAROL BROOKS, DOYLESTOWN, PA. 18901
16. JoAnne Belcher	JOANNE BELCHER, CARDENVILLE, PA 18926
17. Maureen Pierdia	Pt. Pleasant Pike Doylestown, PA 1890
18. Anna Donato	Rt. Pleasant Pike, Doylestown
19. Richard Long	R05 Point Pleasant Pike Doylestown, Pa 18901
20. Ruben Long	" " " " "
21. Charles Long	" " " " "
22. Linda McElhinney	Stump Rd RD#1 Perkasie Pa 18947
23. Veronica Morgan	R.D. 1 - Box 71 Fountainville, Pa 18923
24. [illegible]	
25. [illegible]	RD 5 Cutchall Rd Doylestown 18901
26. Jeanne Sharp	Curly Hill Rd. Doylestown, Pa 18901
27. Josh Sharp	Curly Hill Rd Doylestown Pa 18901
28. Alex + Kathy Duckett	Curly Hill Rd. Doylestown, Pa. 18901
29. Kelly Duckett	" " "
30. Lynne Schutt	" " "

(Applause.)

MR. MOODY: Thank you.

Charles Pellegrino.

PRESENTATION OF CHARLES PELLEGRINO

MR. PELLEGRINO: My name is Charles Pellegrino, Old Eastern Road, Pipersville, Pennsylvania.

Thank you for being here.

One of the environmental impacts of an intake for Limerick being placed in the Delaware River at Point Pleasant would be the implementation of the Neshaminy Water Resources Authority water plan, a plan that would exist hand in hand with the intake operation.

The building and operation of the water system and intake would cause numerous and previously listed environmental, social, historical, archaeological, esthetic and economic harm to Bucks County where I live.

Some people believe that the impacts are unavoidable because water is short, people need water and they might as well go along with the people and share expenses. This is false. This is the thirsty people smokescreen.

Ground Water Study Area Two Aquifer is not short of water and the economic results are bitter. They include hugh bond paybacks, high-priced water and assessments for footage.

The latest ground water study compiled for the Delaware River Basin Commission shows that there is plenty of available ground water in Bucks and Montgomery Counties which are included in the Ground Water Study Area 2. You can read it for yourself in the report done by the R. E. Wright Associates of Middletown, Pennsylvania. It is far more economical and less environmentally damaging to continue to use well water in this area.

Therefore, do not think that taking Delaware River water would aid Bucks or Montgomery water supply needs, or that the associated environmental harms are unavoidable.

If Limerick must use water, Limerick should sensibly obtain water from a closer source or from an existing facility. The environmental damage would be far less.

Thank you.

(Applause.)

MR. MOODY: Thank you.

Val Sigstedt.

PRESENTATION OF VAL SIGSTEDT

MR. SIGSTEDT: Thank you.

My name is Val Sigstedt. I live in Point Pleasant, Pennsylvania. I am founder and past president

of Delaware Unlimited, Incorporated.

Our contentions were accepted by the NRC to the effect that there is at least a question of whether or not the use of the Delaware River might be solely due to the use of the Philadelphia Electric Company and therefore should be under the direct charge of the Federal Government.

As this is standing right now, the relationship between the Federal Government on this is very uncertain. There is almost no federal mandates as to who takes care of rivers. We are looking down at a river that has suffered enormously from the lack of concern of the people in this basin.

Now I don't say it is the people in this basin who are not concerned about the river, but it is certainly the people in this basin who allowed the City of New York to take over the head waters of the Delaware River. It is probably a basic right of a river to exist as a river and not as a source of water for somebody in some distant watershed.

When you get into the questions of diversion, you get into the questions of whose rights to the water are really being violated or whose rights to the river and water are being accepted as a prime natural function of water.

I live in Point Pleasant and, as you can tell, this is a very difficult subject for me because it is my town that is being gone through by a very large military-like maneuver. The rocks that my town is based on are very old rocks. There is an igneous intrusion in Point Pleasant that is basically a diabased intrustion running up through the basic rock plateau that we all live on in the Delaware River, at least in what is called the Triassic lowlands.

In our case we have a special problem up there. When you bake the rocks in Point Pleasant, as has happened, you have something very much like glass or steel happening to the rocks that have been baked. Now that kind of rock when you blast on it is like hitting a rod. I could take a rod from here to let's just say the towers and hit it with a hammer and there is no question that the impact of my hammer could go clear to wherever that rod ended and do its damage right there.

Now the problem is that every place you have a hole in the Triassic lowlands with this kind of rock and you start blasting, the shockwave goes until it reaches that hole and then it smashes whatever is around there. Now think of that as the hole that you call a well or the hole that you call the foundation for a home, or the hole that your septic tank has to be part of. If you go

blasting around Point Pleasant you are going to wreck things and that is a fact.

What other things will happen to Point Pleasant? It is an archaeological resource, a marvelous archaeological resource. They are finding Indian material there. Maybe the most important thing the fight about this pumping station may achieve is to document that this whole place in Point Pleasant has meaning from the past clear to our own time.

The vicinity itself is rich in the cultural facts of a river civilization. It should be left alone. It is a resource that this area can never do again and it can't do without. If you put water above us, and that is what Bradshaw Reservoir is, which is the receptical for the river water coming out of Point Pleasant, pumped out of there by 25,000 horsepower pumps anchored into the bedrock, and they will make noise and they will shake and there will be a large diesel engine there to pump the air which is going to come up in the pristine eddy, air to back-flush these intakes, a nice place to teach your kids how to canoe or show them how to fish is in a place on this seemingly undisturbed water where suddenly a belch of air comes up that is 75 feet long and noise.

Those are not the things that you would put in

your own hometown if you were anywhere sane. I have even had a representative of the Philadelphia Electric Company say to me I would do what you people are doing if it was going through my hometown, and I must say I respect that.

You can't just pretend that the town doesn't exist. If the water gets up to the Bradshaw Reservoir, it is going to be forced down through 17 feet of waterhead, and if you ever held a hose up in the air that is a lot of pressure of water, and just that is enough to force it down into the ground water, which in our terms if a fractured rock plain that carries water interconnectedly through all of our wells. The local well people know that water from one well is really the same as in other wells.

Now once you infiltrate that with river water, with TCE's and with hydrocarbons and chlorinated hydrocarbons and all the kinds of things that the industrial communities need and use and hopefully we will find a way to clean up, we get that in our ground water and we get that in our well water. It is a real question.

Now the intakes. The intakes are in the eddy at Point Pleasant which is a very beautiful place. It is right below the mouth of the Tohickon Creek and the

Tohickon Creek is a notorious stick hole because it comes right down from Quakertown and Quakertown processes its unfiltered sewage, 50 percent treated sewage and lets it down into the Tohickon Creek. That is the water that in their wisdom the Counties of Bucks, Montgomery and PECO are going to infuse into all the river systems that Mr. McKnight spoke about earlier.

It is a dirty way to handle water and people should take care not to do it because there is no way going back on it. You simply have to tell all the people who got that water either we clean up the rivers or we make them get off their land. It is PECO's project. Bucks County was forced to go this thing alone.

It will happen if the organizations and the groups of people, the enormous numbers of sensitive people have their way in this, and we will use every reasonable method to stop that pumping station and stop the County of Bucks from having any parts in it. Then PECO will be forced to go it alone and they will be forced to use the ordinary processes that are designed so that intake for a nuclear plant has to be studied environmentally and not just in a couple of months or a half a year It takes a couple of years to do a really good study of what an intake does to a river or a water

system. That is what PECO should have to do to get water out of the Delaware, and everyone I know will say you couldn't get a successful impact statement that would let them take water out of that beleaguered river.

Thank you very much.

(Applause.)

MR. MOODY: Thank you.

I inadvertently skipped a name that was on the list.

Kathryn Auerbach.

PRESENTATION OF KATHRYN AUERBACH

MS. AUERBACH: Good evening.

I am Kathryn Auerbach. I am speaking for the Bucks County Conservancy, 11 North Main Street, Doylestown, Pennsylvania.

The Conservancy wishes to make the following statements regarding the impacts of the proposed pumping station on the Delaware River at Point Pleasant on the archaeological and historical resources defined and recognized at that site.

Our primary concern is with regard to two federal laws, Section 106 of the National Historic Preservation Act of 1966 and Section 110(f) of the National Historical Preservation Act Amendments of 1980.

There are several historical resources which

fall under the protection of these laws within the impact area, namely, the archaeological district of Point Pleasant and the historical district of Point Pleasant both deemed eligible for the National Register and the Delaware Division of the Pennsylvania Canal, a national historic landmark.

The Conservancy has made public testimony with regards to these resources to the Delaware River Basin Commission and the United States Army Corps of Engineers, Philadelphia Branch, and has submitted extensive documentation to the Pennsylvania Historical Museum Commission, the National Register, the Army Corps and the Advisory Council For Historic Preservation. We understand the NRC has accepted these previous testimonies as part of the public record of the Conservancy's comments.

There are several new points that the Conservancy wishes to make tonight.

First, the Conservancy feels that the review procedures by other agencies regarding the Delaware Canal have not complied with the provisions of Section 110 of the above-cited law. This section states that "The head of the responsible federal agency shall, to the maximum extent possible, undertake such planning and actions as may be necessary to minimize the harm to such

landmarks and shall afford the Advisory Council a reasonable opportunity to comment on the undertaking."

The crossing of the Canal at the proposed location will cause considerable damage and disruption to the Canal and its environment. Specifically the blasting to the extremely hard rock 30 feet below the Canal will destroy that section of the Canal and endanger two original locks flanking the site and possibly the aquiduct over the Tohickon Creek.

Blasting studies to date have been questioned as to their adequacy assessing the impact of blasting according to the present designs of the project. The mountain side inn and hotel being of the mid-18th Century is included in the Canal's landmark designation and within direct visual environment of the proposed project.

Admittedly, the vicinity around the Canal and the hotel is primarily a natural one and the inclusion of an intrusion diminishes the value of the visual quality created by these resources.

The Advisory Council recognizes the implications of Section 110(f) and is presently including them in its memorandum of agreement being drafted with the Army Corsp of Engineers.

The Conservancy recommends to the NRC that

alternatives to the proposed project for supplying water should be actively investigated in accordance with Section 110(f) in ensure the protection of the Canal. The ultimate value of the Canal, a national resource, can only be retained if it is maintained as much as possible in its existing state and not destroyed and rebuilt as a facsimile.

Secondly, through the efforts of the Conservancy, a definitive study is being conducted uncovering new information regarding the archaeological resources within the district of Point Pleasant which is leading to an increased understanding and significance of the site. The archaeological district, which follows essentially the same boundaries as an historic district as defined by the Conservancy, is significant for the following reasons.

First of all, to date there has been no detailed archaeological investigation of the Indian occupation in the Middle Delaware Valley, especially on the Pennsylvania side, and this new site therefore can yield new and and significant information regarding Pennsylvania prehistory.

Secondly, within the boundaries are several types of features adjacent or a part of each other, village occupation sites, lithic workshops, graves and

most importantly argillite quarries. The latter is generally found as an isolated feature and not adjacent to the village occupation area, thereby making the Point Pleasant area an example of a very unusual and significant archeological resource.

Thirdly, a number of the flood plain sites are stratified. One recently tested has revealed a nearly perfect stratification with a late woodlander most recent occupation beginning 20 inches below the surface. Sites in this region range from the time of the European contact as far back as 4,000 B.C. Within this district many of the features are basically intact and are resources that can be tapped carefully for important information.

Mr. Samual Anders of Ridmore College and formerly Regional Archaeologist for the Pennsylvania Historical Museum Commission is of the strong opinion that the Point Pleasant archaeological district may in itself qualify as a national historic landmark. The proposed intake pipes would cut directly through a significant section of one of the village occupation sites and thereby destroying valuable data necessary to the integration of all the sites and interpretation of the Delaware River occupation as a whole.

Salvage archaeology is an undesirable method

of retrieving data. All efforts should be taken to ensure that all the sites within this district be preserved in order that proper study can be conducted with great care.

Thirdly, the unique quality of the historic district of Point Pleasant will be maligned with the intrustion of the facility with a use incompatible with its surroundings. Point Pleasant is characterized by its strong natural features and casual residential and light commercial activities with strong ties to the river through fishing, recreation and simply by the climate and atmosphere created by the flowing water.

Point Pleasant encapsulizes a river civilization which has existed over six millennium with worker occupations gracefully overlaying the former with a continuing recognition of the river as a source of subsistance and pleasure to its inhabitants.

The Conservancy strongly recommends that alternatives be sought which would not disturb the delicate quality of these resources and their environment.

Thank you.

(Applause.)

MR. MOODY: Thank you.

Patricia Walsh.

PRESENTATION OF PATRICIA WALSH

MS. WALSH: I am Patricia Walsh from Point Pleasant.

I would just like to point out a few of the adverse impacts the proposed Point Pleasnat diversion would have.

The proposed Point Pleasant diversion would have and cause major adverse effects to the Delaware River and the East Branch of the Perkiomen Creek and the communities in the area including the following.

The proposed intake at Point Pleasant, Pennsylvania would deplete the water resources of the Delaware River and substantially destroy a significant spawning and nursery area for the American shad and adversely affect a possibly critical habitat of the short nose sturgeon, an endangered species, and eliminate or substantially eliminate important recreational, boating, swimming and tubing area in the Delaware River.

The water withdrawal will cause deterioration of water quality in the Delaware River down to and including the estuary, and increase the salt water intrusion of the Delaware River thereby affecting downstream users' public water supplies and the ecology of the Delaware River and estuary as a whole.

The intake facilities would destroy the character and possibly the physical structure of the national historic landmark of the Pennsylvania Canal and substantially destroy the environment of the landmark and the adjoining national historic district.

Eligibility is being determined by the consultants to the U. S. Army Corps of Engineers. The compiles will substantially destroy the peace and tranquility of the Point Pleasant Village. The proposed Bradshaw Reservoir will adversely affect the ground watertables and ground water quality throughout the Point Pleasant and Bumstead Township area.

A discharge into the Perkiomen Creek will adversely affect water quality in the Perkiomen Creek and cause bank destabilization, flooding and adversely affect fish and wildlife in the Perkiomen Creek and its valley.

Those are just a few of the things. I am a member of Delaware and have been so for two and a half years, well, before Delaware even existed actually.

(Laughter.)

MS. WALSH: Water is really important, and to go into this business of nuclear power plants without having the water problem solved is very bad business, and I would just like to ask you to really take a good

look at the water problems.

Thank you.

(Applause.)

MR. MOODY: Thank you.

That is the 20th presentation. There are 14 to go. So you will know how we stand.

Colleen Wells.

PRESENTATION OF COLLEEN WELLS

MS. WELLS: Good evening, ladies and gentlemen and members of the Nuclear Regulatory Commission.

My name is Colleen Wells and I am from Pipersville in Bucks County, Pennsylvania, and I am presently the President of Delaware, Unlimited, and as such I would say we are in an organization approaching a thousand members in Bucks County and Montgomery County as well as New Jersey.

I would also state that we represent the public interest in Bucks County in the Delaware Valley in the impact area of the proposed Point Pleasant diversion. As such I would just like to say that as many people here have spoken eloquently to the issues that concern the people of the region that is affected, and, as you already know, we are intervenors into the operating license procedure for Limerick. So you are well aware of our contentions and the issues that we

would like to bring before the Nuclear Regulatory Commission.

Along with that I would like to state, if you are not already aware, that the people in the Delaware Valley are unalterably opposed to the diversion of water from the Delaware River for the purpose of cooling water at the Limerick Nuclear Power Plant. I think that there is no way around that fact.

In conjunction with that in order to determine or to understand better exactly what the concerns of all the residents of that area are, the Nuclear Regulatory Commission must hold a public hearing in our own region because as you will hear from Delaware ---

(Applause.)"

MS. WELLS: --- as you hear from Delaware in our intervention and in our litigation proceedings, you understand exactly what we are saying. We speak for our group and we speak for the people, but in order to get the wide range, the panorama of the concerns that all the people have you must do that.

As you are already aware of many of the concerns that we raise, the only things that I would add to that is the fact that since the conception of Limerick the effects of the Point Pleasant diversion have never been considered in any review.

During the construction license stage it was determined that Point Pleasant was an assumption and therefore it was not necessary to review. The DRBC in 1973 decided it was too early. When they did their environmental impact statement they decided that it was too early to look at the intake on the Delaware River as there was no design. In 1979 they came out with their environmental assessment and still they decided that it was too early as the intake has been moved.

The Corps of Engineers is the most recent holder of the jurisdiction over the permits for the intake and since the public hearing that they have held on the intake and related components of the project the intake has been moved yet again.

In light of that and in light of the fact that the July 1982 DRBC recommendations on the handling of the Delaware River and by their own admission they cannot say that they can hold back the salt line or that they can guarantee any flow in the river. Since they haven't determined a number that they can guarantee in times of low flow or drought, I think that it is completely within the purview of the Nuclear Regulatory Commission to take a very hard look at the local impacts of the Point Pleasant diversion and its intake on the Delaware River as well as the overall impacts and the

cumulative impacts which will be perpetrated by the installation of this impact intake as well as the installation of the Murrel Creek Project upstream which is to be used for make-up water for the Point Pleasant diversion.

The other fact that must be considered is that Limerick may have only one unit and maybe there will be no units, but in light of any of those situations the water issue is of serious concern about the adequacy of the water supply for the Limerick Nuclear Generating Station. I would only reiterate that it is not going to come from Point Pleasant.

Thank you.

(Applause.)

MR. MOODY: Thank you.

Mary Bean Rogers.

PRESENTATION OF MARY BEAN ROGERS

MRS. ROGERS: I am Mary Bean Rogers, Mrs. Richard Rogers. I live on the Sumneytown Pike in Upper Salford Township, Montgomery County.

Air and food and water are the only elements the human beings have to have in order to live on this planent earth. In our world we humans cannot survive without any one or all of these three.

History records and archaeology discloses that

powermongers have since the advent of man sought and battled to get control of these three necessities of life for humans, air, food and water. That is what is going on at this moment in this place with Limerick nuclear.

Of all the techniques available to manufacturer electricity for anybody anywhere in the world today only nuclear fuel generation of that power generation of that power can exclude air, food and water from human beings. None of the other fuels can destroy not just the availability of air, food and water, not just access to air, food and water, but air itself, food itself and water itself.

We have in our century invented this process. We can do it, we used it and we are using it. It is the discovery, the realization of the increased power of utter negation for all of us that makes the building, the licensing and the operation of Limerick and Limerick's ilk so much more serious a procedure than for any other kind or combination of electric water transportation construction, promotion or business expansion and/or monopoly that these powermongers have sought and got in the past.

Questions: Is it true today that the Nuclear Regulatory Commission of the United States of America,

USNRC, has no legal right to deny a permit to Philadelphia Electric Company or any other applicant to operate a nuclear fuel power plant? Instead, is the USNRC restricted by law to conditioning only such a permit which they have to issue in some form sooner or later?

I would like to have the answers to these two questions from the USNRC in writing.

If an environmental impact statement is a part of the licensing review and permit process legally required to be made by the NRC, then the present NRC members in fairness to themselves and to protect the integrity of the Commission to which they have been appointed should start with a clean slate and create an EIS entirely by themselves based upon their own findings.

I warn the president of NRC to be on guard and not to rely on any material incorporated in any of the reports and EIS's already issued in relation to Limerick. I do not say don't read them. You should read them to see what was put out and what wasn't.

I say do not rely upon them because they all are loaded with incorrect big mistakes, discrepancies, omissions and fiction. They are rigged propaganda, pro Limerick and pro Point Pleasant diversion. If you wish, I will furnish you with details from my findings, but I

can't do it here now in five minutes.

For your EIS I want you to include investigation of the following as of the utmost importance.

Re the 45 million gallons a day plus or minus of water for consumptive use required to operate Limerick, there is no set specific plan submitted to get that amount of water to the reactors, nor has there ever been any revealed at any time. All the answers to questions asked for or objections to are, oh, well, we aren't going to do it that way now. There has been no recognition of the conditions in impoundments, including premature failure, requisitioned to be part of the peculiar alternating water supply for the Limerick reactors.

Does NRC know that the private Philadelphia Suburban Water Company built their Green Lane Reservoir dam on a fault? Is the NRC aware that the location of the Perkiomen Creek intake is not where it is shown to be on the plans?

There has been no evaluation of the effects of Limerick nuclear upon the food supply, the water supply and sewage disposal physical or economic of the three great metropolitan areas containing millions of humans at the points of a triangle within which Limerick

nuclear is being built.

No recognition has been paid to the confirmed prior water rights of others to the waters involved in the supply and conduit for Limerick, the court decrees applicable or for the future needs that this taking will interfere with.

Please investigate the building and closing and severence of railroads in strategic locations in the neighborhood, the closed bridges and thereby road abandonment and the congesting of traffi by whom and when.

Most importantly, evaluate the importance of the proximity of the control center of the entire Pennsylvania/New Jersey/Maryland interconnection, PJM in Lower Providence Township near the Betzued Bridge and other generating and distribition stations and not just the PECO, but other electric lines, gas lines, oil lines, sewage lines, water lines and lines of communication.

I quote, "To err is human." PECO admits this. See their accident preparation expenditure at Limerick. The possibility of accidents was off bounds for us to discuss before TMI because we could not prove by fact that it could happen here. TMI is constantly referred to as the worst nuclear accident we ever had.

It isn't "had." TMI isn't over yet and nobody seems to know when or if it will be, and worse than that, who is going to have to pay how much to try to get it over?

Cautiously apply TMI to Limerick. Think on the consequences of nuclear contamination of the air, the food and the water that we humans have to have to live which can happen if PECO is granted a permit to operate Limerick No. 1 and/or Limerick No. 2.

Realize and admit that there is only one foolproof way to guarantee no nuclear accident: No permit issued to Philadelphia Electric Company to operate Limerick as a nuclear plant.

Thank you.

(Applause.)

MR. MOODY: Thank you.

Robert Boyer.

PRESENTATION OF ROBERT BOYER

MR. BOYER:

My name is Robert Boyer and I live in lower Pine Creek Grove in Chester Springs.

I manage Sky Castle Farm in Chester Springs which is a 250 acre pure bred beef cattle operation and hog operation, and I am very concerned about Limerick nuclear plant becoming operational.

I also have a deep heritage in this area. My

ancesters were French Huguenots that came over here in the 1700's and they settled just a few miles west of here and I was born and raised in Pottstown. So we haven't gotten very far and there are a lot of my people buried in this area.

So I am very concerned when I stop to think what effect Limerick is going to have on this area, health and safety, economic and environmental. I analyze it that they are all negative and I cannot see any good of this plant becoming operational.

I also look back at Philadelphia Electric Company and see it as a grossly mismanaged corporation.

(Applause.)

MR. BOYER: The very idea that Philadelphia Electric should overextend itself so much in the nuclear area when in fact it is already overcapacitated in nuclear generating ability and also the fact that it chose Limerick as a site, one of the poorest and probably the worst site in the area from an environmental point of view. The population, they had no water and they didn't know where they were going to get the water until very recently and they still don't know really where they are going to get the water.

(Applause.)

MR. BOYER: But I know this is an

environmental study that we are talking about here. So I would like to address the environmental issue of human beings. I think sometimes we don't stop to consider the effect on human beings. We look at everything else but people, and there are an awful lot of people in this area.

It would be impossible. I have talked with rescue squads, with volunteer firemen, with school teachers. It is impossible to evacuate this area. It just could not be done.

It is possible, probable and probably a fact that if this plant does go on line there will at some point be need for evacuation. This in itself would say to me that this plant does not belong in this area. If we even need nuclear power at all, which I personally don't think we do, plants should never be allowed to be built in the proximity of the amount of people that are in this area.

Another area, I happen to be a farmer. Somebody mentioned it, and I think I jotted it down, about emergency planning for farmers. Everything I have read in this area has just been a farce; to leave and just put a note on your door what to feed the animals, or something to that effect.

(Laughter.)

MR. BOYER: I have seen things like this and apparently Philadelphia Electric Company has actually considered this, that when the National Guard comes in they will take care of your livestock and just pack up and go to these jammed highways. This is ludicrous.

In this area there are many small family farms. There are a lot of equestrian centers with a large amount of livestock. There is no way that these animals could be gotten out of the area. So who pays for the economic loss? Our insurance doesn't. Every policy you read has an exclusion for nuclear accidents. Who pays?

My notes I was writing as I was going along here and I just want to check to see if I covered everything.

I guess I will just end up and say, gentlemen, not just who pays, but who cares? Do you care about the people in this area? Do you care about this housewife from New Jersey who talked about her children?

We in this area don't want Limerick here.

Thank you.

(Applause.)

MR. MOODY: Thank you.

Richard W. McCoy.

PRESENTATION OF RICHARD W. McCOY

MR. McCOY: My name is Richard McCoy, and I am a fish and wildlife biologist with the U. S. Fish and Wildlife Service. We are located in State College, Pennsylvania.

The Department of the Interior and the Fish and Wildlife Service has had a long history and involvement with the Limerick Nuclear Power Plant that goes back to 1970. Every since the first comments we made on the power plant, we have raised the same issues and we are still raising the same issues but only in a little bit more detail now.

We started off by wondering about the logic in siting a nuclear power plant on a river that didn't have an adequate source of water, knowing full well that the summertime flows dropped extremely low. We questioned about the diversion of water from the Delaware River and the removal of that water and its impacts on the water quality in the lower river, its impacts on water quality in the estuary and its impacts on salinity in the estuary.

We questioned from the very beginning what the impacts would be from the inner basin transfer of water and the precedent setting implications of inner basin transfer of water to make up water supply needs for

industrial development or for municipal development.

This is the only case that I can think of in Pennsylvania where we have a proposal to transfer water and to dump it into another stream and allow it to run down that stream before it is taken out and treated and used. There are other cases of inner basin transfer of water, but they are always directly out of the other source into a treatment plant and on to the user and not dumped into an open creek channel beforehand. We are concerned about what that might imply in the future in moving water around Pennsylvania and in New Jersey.

I was sitting back there thinking about a person in a canoe being swept down the river in a flood situation and his cries for help are being drowned out by the roar of the river. We feel like in the Fish and Wildlife Service that we are being swept down the river and we haven't been heard yet on some of these concerns that we have been raising year in and year out. They still haven't been addressed to our satisfaction.

I was sitting back there in retrospect thinking about the sequence of events that have happened in relation to the Limerick power plant. First of all, you have a power plant that was sited on a river with an inadequate source of water supply. So therefore you come up with an environmentally damaging proposal to

transfer water from another basin. Then you find out that that other basin that you are going to get the water from doesn't have an adequate water supply of its own. So you come up with a third environmentally damaging project called Murrel Creek.

So what you started out with was a bad site and you ended up with three bad projects all linked together and all dependent upon each other for their development.

What you put the Fish and Wildlife Service in a position of is either opposing these other two environmentally damaging projects at the expense of standing in the way of allowing Limerick to begin its operation on schedule.

We either have to go along with these other proposals or we have to say that you guys have got to put the breaks on Limerick until you come up with an adequate water supply in the Schuylkill Basin somewhere of make-up water.

Looking back through the records, there is a period of time when the Fish and Wildlife Service was not strongly vocally opposed or not vocally concerned about the development of the nuclear power plant at Limerick and the other associated developments that will have to take place for it to operate, the reason being

that there were several things taking place then in the early 70's that caused us to maybe be not be as concerned as we are now.

One of those was the Tox Island Dam. There was a strong possibility that that was going to be the make-up water supply on the Delaware side and everything would be fine. There would be plenty of water when you needed it during low flows. You would just open up the tubes at Tox Island. Well, that went by the wayside and it has now been deferred to the Year 2000 as a possibility of being developed. So now you are down to where do we get the water from and you come up with the idea of Merril Creek.

Another thing that we began looking into when things started showing up as other problems in the basin, such as the salinity problems in the Delaware Bay. It is kind of a subtle, slow change, a slow movement of the salinity line up the bay and now all of the sudden we find the Iso Halley(?) lines are approaching a point where they are going to jeopardize the continued production of oysters in the upper bay, the sea oyster beds that are vital to the production of oysters in the Delaware Bay.

We began to look at the history of the bay and realized that there had been some subtle changes in

populations of fish and the distribution of plants and the salinities are all tied into that. That is not to say that we can point to any one reason for it. The Delaware River Commission has identified several and we believe there are several more which are tied into it. But one of those has to be the reduction in flows coming into the estuary.

The Delaware River is the major source of fresh water input into the Delaware estuary. It is important that we have enough fresh water to hold the salinity levels at the places where they need to be to allow the fish and the invertebrates and the plants to produce and go through their live cycles in the natural way that they have always done in the past.

We began to realize that in the last ten years from 1970 to 1980 there was an increase of 530 cfs in the consumptive depletive uses of water in the basin. The Level B study predicts that the consumptive depletive uses in the basin will double in the next 20 years. We began looking around, well, where is this make-up water going to come from or are we just going to see the river gradually dry up?

Other than Merril Creek, there are no proposed makeup reservoirs in the basin that are anywheres close to being developed in the near future. Yet, we begin to

see in the last two years times when the Delaware River has dropped below the target level of 3,000 cfs at Trenton.

The Level B Study in the Delaware River Basin Commission stated that there was enough adequate supply of make-up water now in the basin to maintain a flow of 3,000 cfs in the river at all times, except during a drought that was experienced during the 60's. Well, the records in the last two years have shown that that is not the case. There isn't enough make-up water in the river available in storage now without Point Pleasant and without Limerick in operation, and yet every indication is that the movement is going directly on, rolling on as it always has been towards issuing the operating license on schedule and allowing Limerick to fire up on schedule and still where is the make-up water and where is the supply.

There are a lot of unanswered questions even with Merril Creek. There are a lot of environmental concerns that need to be worked out on Merril Creek before it can become a reality. Is it going to be on line and available for the make-up water in time for Limerick to begin operation when it is scheduled to? We are only talking about a couple years leeway any more because everything has been rolling along without any

concern on the environmental side.

Just to show you how bad the make-up water situation is, in January of 1981 the flows at Trenton dropped to 2,080 cfs. I began to think, well, I don't believe the DRBC has even considered a worst case scenario that might occur in the middle of winter.

If you begin looking at the possibility of a good, cold winter where all of your rainfall is tied up and all of your precipitation is tied up in snow in the mountains and your flows in the river have dropped low because of the high snow build-up in the mountains the Corps of Engineers decides to draw down their reservoirs early and they decide to draw then down to the maximum to allow them to have maximum flood control protection come springtime when this all melts and lets loose. So they don't have any make-up water available in the latter part of the wintertime just before the spring runoff begins.

You also see a depletion in the water perhaps in the three New York City reservoirs in the upper basin, one of the major sources of make-up water during the year. Perhaps their input is being reduced because of a cold winter where all the precipitation is tied up in snow and ice. So their reservoirs are already down and they have had a good consumptive use demand over in

New York City and they have pulled a lot of water out of the reservoirs and there is not as much available for make-up. The Delaware River Basin Commission is then sitting in a position where they can't make up the water they need to if they ended up in an extended dry period.

I don't believe that the worst case scenario has been run through the computers yet. As far as the modeling, which I have noticed the Philadelphia Electric Company has taken Delaware River Basin Commission's models and used them to the maximum to justify the Point Pleasant diversion to justify Limerick's plans, and yet if you go back you have to be very careful in looking at the Delaware River Basin Commission's model runs.

The models themselves are subject to some question of how accurately they are depicting, the oxygen model and salinity model I am referring to, in depicting salinity levels and the impact of salinity levels by Delaware River flows.

But be that as it may, they also have to take a very close look at the assumptions that went into depicting the model runs. Some of the model runs that I have seen use the assumption of make-up reservoirs on line in the basin that aren't even on the books yet and aren't even in their final design stage and aren't anywheres close to providing water, and yet they ran

them as being there and being available so that they could maintain a 3,000 cfs flow so then they could run their computer runs and analyze the impact of what Point Pleasant will have on oxygen an salinity in the bay.

You have to be very careful, I caution you, when you are reviewing those projects to look at the fine print on the Delaware River Basin Commission's model runs.

We have a concern about the Perkiomen Creek situation. I was taking to Mr. Bowersox who is a waterways patrolman over there today and he was telling me how important of a small mouth bass fishery that they have in the Perkiomen Basin. Many of the tributaries to the Perkiomen are already damaged and degraded by industrial, agricultural and municipal discharges.

One one exception of importance is the East Branch of the Perkiomen. It is a relatively clean stream yet. In the lower end of the Perkiomen Mr. Bowersox was telling me that there was a noticeable use of that area by small mouth bass for spawning in nursery areas.

We are concerned because a small mouth bass is a fish that is very sensitive to changes in turbidity in its spawning cycle. It is very sensitive to changes in temperature. It is very sensitive to changes even in

water depth. They will abandon their nest very readily and open it up to predation or open it up to fungal attacks if something changes such as turbility or water temperature or water depth.

So I urge you in the preparation of the EIS and the review of that that you look very closely at what they are saying about the discharges in the Perkiomen Creek from the proposed Point Pleasant diversion.

Another concern we have in the Perkiomen Basin which has just recently we have become aware of is the ground water situation. There was a study done in '79 and '80 which resulted in the designation of the Perkiomen Basin, as well as others in this area, as a ground water protection area by DRBC because they recognized that they were over withdrawing ground water. The water tables were dropping because of the heavy use of ground water in this area.

What that does to the streams is that it dries them up. Springs that the stream normally cuts through the ground watertable and there is a spring there, then there are no longer springs. Other areas where the substrate is pervious you no longer have a situation where the stream flows over, but actually the stream is intruding into the ground water. You are losing water

to ground water out of the stream.

They have identified a two-mile stretch in the East Branch of Perkiomen downstream of the discharge point from Point Pleasant which is an intrusion area to ground water. The East Branch of the Perkiomen is recharging ground water up there because of the heavy use of ground water in that area. Nobody has to this date looked at how much water will be lost to the ground water as opposed to how much will be allowed to be gone on downstream.

There are also some other areas on the Perkiomen itself which have been identified as potentially areas where ground water recharge is occurring out of this stream.

Are we going to see a need for Limerick to pump more than what is now proposed to compensate for the water that is going into ground water in order to have enough water where it reaches the intakes for Limerick on the Perkiomen? If we are, then I think those need to be brought out to the public and need to be identified now.

I think that you are going to see that there is going to be water coming from the Delaware that is going to be recharging the aquifers in the Perkiomen Basin and further reducing the flows in the Delaware

River and further complicating the impacts of water quality and salinity intrusion downstream.

I would urge in the preparation of the EIS that they look at the adequate storage of water in the Delaware Basin for the demand to Limerick and still being able to maintain flows downstream. I don't believe that the supply is going to be available when Limerick is ready to begin operating.

They need to look at the effects of the Limerick Nuclear Power Plant on the depletive uses of water and its effects on quality in the lower Schuylkill River during low flows. There was a study done in 1976 that showed that in the lower reaches of the Schuylkill River that 40 percent of the flow of the river at low flows is a direct discharge from municipal and industrial users. Forty percent of the discharge of the river is coming directly out of pipes somewhere along the river in a low flow situation.

Is Limerick going to aggravate that? Are there going to be requirements in the future to have more water go down the Schuylkill and require more water to be pumped from the Delaware River to compensate for that so that we get more flushing action during low flow periods in the Schuylkill River? I don't believe that question has been addressed yet.

MR. MOODY: Mr. McCoy, could you summarize your final points.

Mr. McCOY: Yes. I just have three more.

How much water is being lost to ground water in the Perkiomen that I mentioned before? What will be the impacts on the small mouth bass in the East Branch of the Perkiomen? What has been the cumulative effect of the depletive water uses on water quality in estuary and in the salinity levels in the Delaware Bay and how much have the depletive water uses downstream of Trenton affected the salinity levels?

It is all tied in and it needs to be looked at as part of the overall picture of what Limerick is doing to the Delaware Basin. In the event of a low flow in the Delaware River of 3,000 or less, the contingency plan would be to either reduce production at Limerick or cut it off entirely.

But how long will it take Limerick to shut down and how much after the decision is made to shut down will it take? How much water will it take out of the Delaware and still cause it to drop in flows before Limerick can be completely shut down? Where will the 27 cfs flow come from that will have to be maintained after the operation is shut down, and yet the Delaware River is in a low flow condition?

I don't believe a lot of these questions have been answered and I would like to see them answered in the course of the EIS or the operating license stage.

(Applause.)

MR. MOODY: We still have ten people to go.

Mary Ellen Noble.

PRESENTATION OF MARY ELLEN NOBLE

MS. NOBLE: Good evening.

My name is Mary Ellen Noble and I live in Doylestown, Pennsylvania.

I am President of Delaware Water Emergency Group, but tonight I am going to be speaking only for myself for two reasons. One is the short notice for this meeting. As a matter of fact, our group was not able to prepare any formal remarks in response, and, secondly, partly because of the nature of what I have to say.

We have heard a lot of frustration tonight about water. Practically all you have heard about tonight has been water. I think maybe you are frustrated, too. You are saying perhaps why in heavens name are we at this point being asked to do this? Haven't these other folks done it? How did it get to this point?

That is a question I asked myself when I first

got into all of this a few years back, and you can find out about it the way I did. I think you have to start with the Tox Island Dam. Let's start with the late 60's into 1970 when the Tox Island Dam seemed to be assured.

It was going to provide billions of gallons of water to the lower basin. At the Delaware River Basin Commission you have an Executive Director. As a matter of fact, his name was James Wright. He came from California where they were considerably more used to shifting water around than we are here, a good deal more willing to do it and I think perhaps today less willing than they were back then. He was quite anxious and for a period of two years or a year and a half he proposed strongly that the Delaware River Basin Commission itself should finance, design, construct, own and operate the Point Pleasant diversion.

To this end the staff at the Basin Commission saw some customers. One was the Philadelphia Electric Company who was at that point dealing with where they were going to put this nuclear plant. They had a site over here which sat very nicely on the bridge and they wouldn't have to put in long transmission lines. They have just gone through one tremendous battle putting in the Keystone Line. They wanted to be close to the center of their grid or near the vicinity of their grid,

but they were away from water.

Well, Mr. Wright, who was very anxious to have a place to put all these billions of gallons of water and had the Corps of Engineers ready to build a major impoundment on the river above him, basically I think said to the utility, okay, you like this site over here next to your grid and we can give you the water.

At the same time we have got Bucks County over here who had quite a little problem with a watershed that has gone through a tremendous development and has a tremendous runoff with flooding problems and polluted streams. We will give them a wealth of water for the tremendous population projections they have come up with, which by the way haven't come about.

Back in 1960-something the proponents of this plant in Bucks County said by 1980 Bucks County alone will be using 16 million gallons a day of Delaware River water. They seemed to be quite sure of it. With encouragement from Mr. Wright also Montgomery County there was a feasibility study done which was sponsored by the Basin Commission. Then this marriage was put together for a three-part marriage.

I guess what I want to talk to you about is to give you that background when you are looking back and saying haven't these folks down all of this? I see this

great stack of documents. As a matter of fact, I heard a gentleman call this morning for all the reports that he submitted to the DRBC.

I think that you have to remember that the Basin Commission, to my mind, it led these folks down the garden path. Mr. Wright had gone so far as to check out bond counsel and figure out how the bonding would go and he went to his Commissioners. Four States and the Federal Government said, well, let's go with this. We have got this all worked out, and they said no. He had to go back. He had a few letters from folks and the DRBC saying are you going to do it? I mean, what is going to happen? Now you said that really the only way this can be done sensibly is to have the Basin Commission in control of such a complicated project, and he did make that very strongly, that when you are transporting waters downstream you have recurring rights and you need an impartial agency to deal with it and he said a whole lot of other things at that time.

But then he had to go back and say no, we are not going to do it. Then we came to the point of the construction permit licensing for Limerick and the AEC said, okay, DRBC has done an EIS and that is as far as we are going to go. If you look at the EIS, it wouldn't even come close to being half a chapter in an

environmental report from an applicant the way you do things today, but that was relied on in the construction permit stage.

So that is how we got to where we are at today and I have to draw the inevitable conclusion that the Basin Commission has been protecting this lead that they took. Now now leads us from Tox Island down to all of the things we have heard tonight. As a matter of fact, it may lead us back to Tox Island because I firmly believe that once Point Pleasant goes in the cries will go up again for Tox Island because there won't be the storage, and I will tell you that the Philadelphia Electric Company publicly pushes for Tox Island.

All right, just with that little background we would also like to be able to submit detailed questions and comments on the EROL. We want to know if there is a time period for it and to whom we can send these.

A final thing I would like to say has to do with the way I first learned about this. It finally came to me that if I were a gallon of water coming down the Delaware this could happen to me and I could come down near Warren County, New Jersey and get sucked up in a pump, up 800 feet of head of land in Merril Creek, catch my breath and indeed, given them the skimming regime for Merril Creek, it might be only a few minutes

later that I would come right down again through the same pipe in the Delaware and bubble on down to Point Pleasant where I would get sucked out again by another pump and go up 300 feet of head into the Branchville Reservoir.

I think the average retention time is supposed to be 17 hours there. That might be as much as I would have, and I would get pumped out again up over a ridge line and through a wonderful thing called a managing dissipator into the East Branch of the Perkiomen Creek and go some 20 miles down to Graters Ford and get pumped out there. Let's see, that is one, two, three, four pumps, and the up ten miles to the site. I am sure there is at least one more pump at the site that I would go through, and I am sure any number more and I hate to think about it. When I get there I would be evaporated and furnishing electricity which is what runs all those pumps.

When I first figured that out I thought there is something wrong here.

(Laughter.)

MS. McCOY: My mother said that reminded her of Rube Goldberg, and I think she may be right.

(Laughter.)

MS. McCOY: That leads me to the final point.

What I am doing once I get there is being evaporated to dissipate waste heat. Now this may not have anything to do with Limerick as you have to review it, but I hope you are looking forward to future times, now and in future times. I don't think this economy or this environment or our people can afford to think about waste heat. That heat and its burden on the water resources as waste heat I think is unconscionable in today's economy. In today's energy balance there should be a use for that heat. I wish I could see a way that we could get Philadelphia Electric to go and grow tomatoes with it. I have a feeling that if they could sell the tomatoes in the middle of the winter with the waste heat from Limerick they would have it made.

I will call also for a hearing in Bucks County. I think you have heard a lot about water tonight and I think you will hear a lot more about it and perhaps more specifically.

When you are talking about alternatives in the Schuylkill Basin, there is one that has been brought forward and I don't think in any of the formal documents. There is a series of desiltation basins in the Schuylkill River because of the wastes from previous coal mining operations. It has been put forward and I think it is a very interesting idea that these could be

now emptied and a good deal that are full perhaps recovered, lined and become water storage within the Schuylkill Basin. This is an alternative which should be addressed.

Thank you very much for the opportunity to speak.

(Applause.)

MR. MOODY: Thank you.

Fran Scullion.

PRESENTATION OF FRAN SCULLION

GIVEN BY JACQUELINE RUTTENBERG

MS. RUTTENBERG: I would like permission to speak in place of Fran Scullion who had to leave early and I will abbreviate her remarks.

Francis M. Scullion is at 9639 James Street in Philadelphia, Pennsylvania, 19114. She is the Vice President of CANE which stands for Citizens Actin in the Northeast and she is a member of the Air Pollution Control Board of the City of Philadelphia.

She would like to address herself to the plight of Philadelphia neighborhoods and the overwhelming fiscal problems they are having right now. There are now a quarter of a million PECO customers delinquent, 40,000 Philadelphia gas delinquents, and tht includes 14,000 shut-off gas users. There are 20,000

abandoned homes and they expect about 10,000 homeless people this winter.

The City anticipates that gas decontrol will double the price of natural gas by 1985 just about when Limerick comes on line and raises the base rates and very high, 40 percent according to PECO's figures and 70 percent according to the Office of the Consumer Advocate.

Water quality improvements, which will have to be made because of toxins in the water, will double water's costs approximately at the same time. CANE feels that the Point Pleasant diversion project would be a further drain on the region's economy. The local business of tourism in that area will be ruined and the capital tied up in Limerick and the Point Pleasant pumping station could be better spent on some of the improvements needed in the Philadelphia area.

The Point Pleasant pumping station is not even necessary since the Philadelphia Water Department has repeated said and repeated offered that it could supply the Bucks and Montgomery County residents, and this with a minimum of capital investment, any kind of service that they need in terms of any amount of water that they need. The plant aleady exists and it is not being used to capacity. So why build a whole new project in these capital short times when the interest rates are

extremely high.

The Philadelphia Water Department could thus ease the financial burden on the customers in all three counties by using its Toursdale plant to full capacity.

Now the reason the Philadelphia Water Department has excess treatment capacity is because they, like every other utility, overestimated the demand that we would have in the 80's. PECO, the Philadelphia Water Department and the gas works were all dead wrong when they estimated how much capacity would be needed. Philadelphia has had an additional loss of not only population but 100,000 manufacturing jobs in the last decade. The erosion of the economic base is in part due to normal operations. They have been increasing normal operational costs through the increased gas, water and electric bills and general inflation spiral.

So these facts are critical today because the economic effect of an acute protracted TMI type accident would in addition lead to personal and municipal bankruptcy throughout Philadelphia. The courts ruled today that local governments will not be entitled to any claims for compensation in such an event under the Price Anderson Act and therefore this issue has become of particular concern to the municipality.

The City will have to install, in addition, in

the absence of such an accident, its own air monitors, water monitors and develop evacuation plans, and develop the staffing for emergency procedures. None of this is paid for by the company. This is an impact that ought to be considered. Who is going to pay for it? There are as yet no emergency plans for Limerick and this is of great concern as has repeatedly been said by the City of Philadelphia.

Now we are going to have limited water to sustain industry in this area if the Schuylkill is contaminated for several years until someone figures out how to clean up such an accident. Water is the lifeline of the Delaware Valley and Citizen Action in the Northeast wants to be sure that the lifeline is preserved. CANE is convinced that the finishing of Limerick and the licensing of it is a threat to that lifeline since there is no assurance against such an accident.

CANE would like to thank you for this opportunity to present their concern.

(Applause.)

MR. MOODY: Thank you.

James Burns, Limerick Ecological Action.

(No response.)

MR. MOODY: I guess he has gone.

William Leber, Green Valley Association?

(No response.)

MR. MOODY: I guess he has gone.

Thomas Hartmann, Keystone Alliance.

(No response.)

MR. MOODY: I guess he has gone.

Jacqueline Ruttenberg.

Do you want to speak again?

PRESENTATION OF JACQUELINE RUTTENBERG

MS. RUTTENBERG: I seem to be substituting for everybody today. I am also speaking for the Keystone Alliance in the Philadelphia area.

One of our major concerns and one of our contentions before the NRC has been the need for power question, and I would like to address that and complain before the NRC that that is one of the very things that has been eliminated from consideration. There is no possibilty any more of making contentions on the basis of need for power.

I think that this is one of the most vital issues before the NRC right now in these econmically powerless times. At present there is no lead agency that deals specifically and by statute with the need for power. There was a specific economic investigation conducted by the PUC on the need for power with the

Limerick Generating Station. However, this came much too late in the season to determine that a conservation program, which costs per kilowatt hour say one/tenth of what Limerick by PECO's own witnesses is like to cost per kilowatt hour generated.

This came in much too late to determine that that conservation program would indeed be the best alternative for this area considering the declining demand and lack of likelihood that that demand would increase any time soon.

Again for the Keystone Alliance I would like to complain, as everybody has, about the shortness of notice as the person who did the most work, the techincal work on this contention was not able to come up from his new job in Washington and speak for himself about some of the primary subjects that are of interest to us.

I think that in the same light that the contentions of Delaware were in a rather unique way accepted because no other lead agency had handled the issue that the contention of need for power submitted by the Keystone Alliance ought to have been accepted in light of the matter by the NRC. I think that the finding would have been that the need for power is sadly lacking, and in fact Keystone no longer uses need for

power as a justification for the Limerick plant. It is just simply an economic tradeoff of about how much oil you can cancel with 13 or 14 cents per kilowatt hour nuclear electricity.

I would like to also say that another concern which has hardly been addressed has been the socio-economic impacts of Limerick, including a job cycle. There is a jobs problem created by Limerick in that it creates a lot of high specialized technical jobs for which highly specialized labor must be imported from outside the area such that 40 percent of the jobs in Limerick have to have people from outside the area coming in to work on them as opposed to a conservation program, a more economical conservation program which could employ up to 50,000 people, including 12,000 construction jobs as opposed to the 7,000 jobs total that would be created over the lifetime of the plant.

I would like to say that these environmental impacts, since no other lead agency had considered them, ought to be considered by the NRC. If indeed the water contentions which had previously been considered to be irrelevant or at least up till now were being considered, then our considerations about economic impact and the need for power and socio-economic effects on the job situation in the Philadelphia area should

also be considered.

Thank you for the opportunity to testify. I hope that the NRC rule about the need for power not being considered will be reversed because I think people are struggling now to justify Limerick. In light of all the objectionable impacts that Limerick is going to have on this area, that if we don't need it, it will be an awful shame if we license it just because it was built for some reason and it would be really neat if we could somehow avoid this kind of confusion in the future and make sure that all the alternatives in conjunction with and balanced against the impact of a project were considered first and try to unify procedures and you don't have agencies all over the map competing with each other and arguing with each other.

There should be some kind of certificate of need legislation that does not create fights between state agencies and federal agencies.

Thank you.

(Applause.)

MR. MOODY: Thank you.

Fern Brodkin.

(No response.)

MR. MOODY: Frank Romano.

PRESENTATION OF FRANK ROMANO

MR. ROMANO: I am represnting tonight an ad hoc committee made up of the environmental, consumer and public interest groups who are getting together to organize for this coming November election to force Governor Thornberg out of office unless he prohibits the restart of TMI-1 or any other yet unlicensed reactor in Pennsylvania before the Nuclear Regulatory Commission, the Department of Energy and the nuclear establishment can prove they know how to handle the problems involved in nuclear electricity generation.

Now I would like to say to you NRC fellows, and it isn't really your department, but how many of you can solve the problem at TMI? I don't think any of you can and I don't think anyone in the nuclear industry can solve it because it has been there for three years and they don't know what to do with it.

In fact, this thing is so bad that the Atomic Energy Act had to be an unconstitutional act because they already knew something was wrong with this thing and they made a part of the Act be that there shall be nothing in the Act to prohibit a state from opposing or individuals from opposing nuclear except on radiation hazards.

Well, what other reason should we have to oppose nuclear? They knew there would be radiation

hazard and they have made it part of the Act that you cannot oppose it on that basis.

You know, we talk about other governments and how they keep their citizens, but in the United States we have a situation where you cannot oppose something that you may know can threaten your life. They have said in relation to psychological stress that you cannot claim psychological stress unless there is post-traumatic anxiety. What that really means is that they are going to require you to play the nuclear Russian roulette at least once. You put the gun to your head and if you pull the trigger and you aren't killed, then you can say you are afraid of it from now on and you can't do it in the first place.

Again I say any government in this world, and particularly in a democracy that says this to citizens, has something wrong with it and this is why I say that that Atomic Energy Act is absolutely unconstitutional because we are denied the highest instinct of life, and that is self-preservation.

Now I would like to say that the nuclear reactor is wrecking the environment totally, not in the sense that we spoil a little water, although that absolutely is the case. The accident at TMI almost ruined all of Pennsylvania on March the 28th of 1979.

You know, we were talking about evacuation and all these kinds of things and it was really, you know, that important. Now then Thornberg with Reagan is is pushing nuclear again. You know, here we are going to expose ourselves once again to a threat of nuclear, a nuclear accident because already Thornberg has stated in the paper that it is possible, and so has GPU, that there would be another accident at TMI that would cripple the reactor.

Recently they had television cameras down there and found conditions and problems never before encountered. Now how can the Nuclear Regulatory Commission expect to have people to permit them to start another nuclear reactor when they don't know how to solve problems already existing.

This is the gist of the program and work we are doing now in Pennsylvania. We call it the TMI test of capability. We require the Governor to declare publicly that there shall be no restart of TMI-1 or any other yet unlicensed reactor in Pennsylvania before the Nuclear Regulatory Commission demonstrates fully and completely their capability and their ability to clean up TMI-2, the crippled reactor.

If they can't do it, that is reason enough for a demonstration that they don't have a right to expose

the rest of the people in Pennsylvania to another accident. There are a lot more reasons why we don't want this enviromentally, too, because nuclear is a killer of everything. In Pennsylvania you have 11 percent and here is where the consumers and the miners are coming in, 11 percent unemployment.

We have billions of dollars worth of coal, but we are giving the miners and the railroad workers and allied industries welfare when we could put this coal to use. I have not prepared this because someone just called me tonight to tell me about this thing going on today.

So I wanted to get just that idea in, that you must consider that the Nuclear Regulatory Commission and the Department of Energy and the nuclear establishment should not expect the people to risk again a facility like you have here at Limerick when they have a problem right now that they have failed to solve.

So I am saying to you, all the Nuclear Regulatory Commission, you go back to Washington and ask anybody there where they know what to do with TMI, and if they don't, well, then we have a good right to keep opposing this plant and not just one but all of them.

Thank you.

(Applause)

MR. MOODY: Thank you.

Carla Van Dyk.

PRESENTATION OF CARLA VAN DYK

MS. VAN DYK: My name is Carla Van Dyk. My address is River Road, Loganville, Pennsylvania 08933.

I just want to address the concerns of one portion of the community in Bucks County concerning the jobs there upon the building of the pumping station at Point Pleasant if that happens.

Taking water from the Delaware, which is about an hour and a half's drive from here, and I was thinking what a long distance that is to be transporting water through transmission lines, will have its damaging effects on business along the river in an area which depends heavily on tourism for jobs.

There isn't much else in that river area in Central Bucks County to generate revenue. There is hardly any industry. The natural beauty of the river, which often is about knee deep in most of its parts, is the focus for rich and poor people who are drawn to the Bucks County countryside for some relaxation from the cities.

People all over the country now, and not just from New York City and Philadelphia, are increasingly visiting Bucks County and the river or the Canal as the

publicity in Bucks County has just exploded in the past few years. It has become a much sought after tourist area. As you know, there are many country inns there where people go to dine and stay the weekends and that is what many of us live off of.

Building a pumping station in Point Pleasant, which is in the heart of the beautiful countryside and part of the river valley, means closing off a portion of the road to detour the traffic while they blast away the rocks and dig under the canal and build the station. Detouring the traffic away from that part of the country is disastrous. I have seen the effects of detours in the past just over a period of a few months just to fix some potholes and businesses end up shutting down and they don't come back. It is really bad news.

What will be left of the river after PECO's straw keeps taking and taking and taking? Are we going to have mud there? Well, people aren't going to come to see mud.

Thank you.

(Applause.)

MR. MOODY: Thank you.

Deborah McCaffery.

(No response.)

MR. MOODY: Deborah was the one we were

looking for. That was No. 34.

I think we would like a few comments from Mr. Novak in terms of written statements that may wish to be sent in. Do you want to make a comment about that, Tom?

MR. NOVAK: Let me first say that any written material that you wish to send, if it wasn't provided tonight, you should address it to the Director, Office of Nuclear Reactor Regulation, U. S. NRC, Washington, D. C. 20555, Attention: Limerick Docket No. 50-352/353.

Let me just make a couple of comments. Certainly I want to apologize on behalf of the Regulatory Commission for the failure of the announcement to get out. We intend it that way. I think the participation tonight was extremely useful.

I think we will go back and if we can schedule another meeting in the near future, we will do so, but we will make sure we give you enough time to get together.

(Applause.)

MR. NOVAK: Also, the other comment I had, questions on the EROL and comments should be again referred to the same address that I mentioned earlier. Anything that you want to write to, just send it to that earlier address.

There was one point that I will just mention

briefly. A suggestion was made that the official hearings should be held in Bucks County. Sites are selected by the Hearing Chairman and Members of the Board. They do solicit comments and recommendations from all parties, and I am sure if the interest is as strong as was suggested tonight, then that would be a reality.

I have no other comments.

VOICES: What is the address? Would you repeat the addresss.

MR. LEWIS: The address is the Director, Office of Nuclear Reactor Regulation, U. S. Nuclear Regulatory Commission, Washington, D. C. 20555.

MS. NOBEL: On the EROL is there any kind of time limit?

MR. NOVAK: As a practical matter I think comments when they are received prior to the time that the staff completes its technical evaluation, they would allow them to take them into account and work them into their evaluation.

I guess the DES is out next March, is it?

MR. ABELSON: In May.

MR. NOVAK: In May. So I would say certainly if you could get them in within the next couple of months they could be taken into account. Wouldn't you

say so, Harvey?

MR. ABELSON: Yes.

MR. LEWIS: REGAN I would just like to say one thing to this group. I wasn't really involved in presiding at this meeting, but over the past several years in an earlier capacity as a Project Management Branch Branch Chief in environmental review areas I have had occasion to preside at perhaps ten or more of these public meetings, and this group is certainly to be congratulated because I have never been in a meeting before where the people had such focused comments, such constructive comments and such comments that were strictly pertinent to the issues that were before the Commission in this review.

So I would really like to thank you for the real help that I think you have given us tonight in giving us a good insight into what your real concerns are.

Thank you.

(Applause.)

MR. MOODY: We want to thank again all of you for coming, and want to thank all the officials from the Nuclear Regulatory Commission who are here. On behalf of the Borough of Pottstown I hope you have enjoyed this evening and learned as much as I did.

Thank you.

(Applause.)

(Whereupon, at 11:15 p.m., the public meeting concluded.)

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NUCLEAR REGULATORY COMMISSION

This is to certify that the attached proceedings before the

In the matter of: Public Meeting - Philadelphia Electric Company
Limerick Generating Station - NRC'S Environmental Review

Date of Proceeding: August 18, 1982

Docket Number: _____

Place of Proceeding: Pottstown, Pennsylvania

were held as herein appears, and that this is the original transcript thereof for the file of the Commission.

Mary C. Simons

Official Reporter (Typed)

Mary C Simons

Official Reporter (Signature)