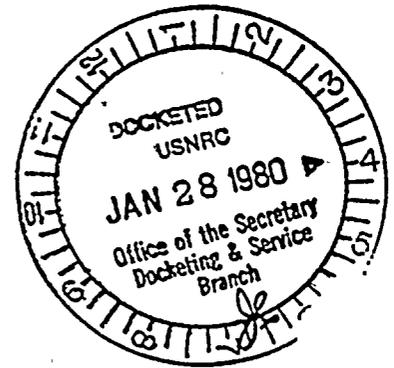


RELATED CORRESPONDENCE

1/28/80



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

IN THE MATTER OF )  
PENNSYLVANIA POWER & LIGHT CO. )  
and )  
ALLEGHENY ELECTRIC COOPERATIVE )  
(Susquehanna Steam Electric )  
Station Units 1 and 2) )

DOCKET NOS. ~~50-387~~  
50-388

ANSWERS TO NRC STAFF'S FIRST ROUND DISCOVERY REQUESTS  
AND  
MOTION FOR PROTECTIVE ORDER OF INTERVENOR  
SUSQUEHANNA ENVIRONMENTAL ADVOCATES (SEA)

Intervenor, Susquehanna Environmental Advocates (SEA), comes now and answers certain of the NRC staff's first round Discovery Requests and makes specific motions for protective orders for certain other first round Interrogatories.

NRC - Interrogatories  
General Contentions

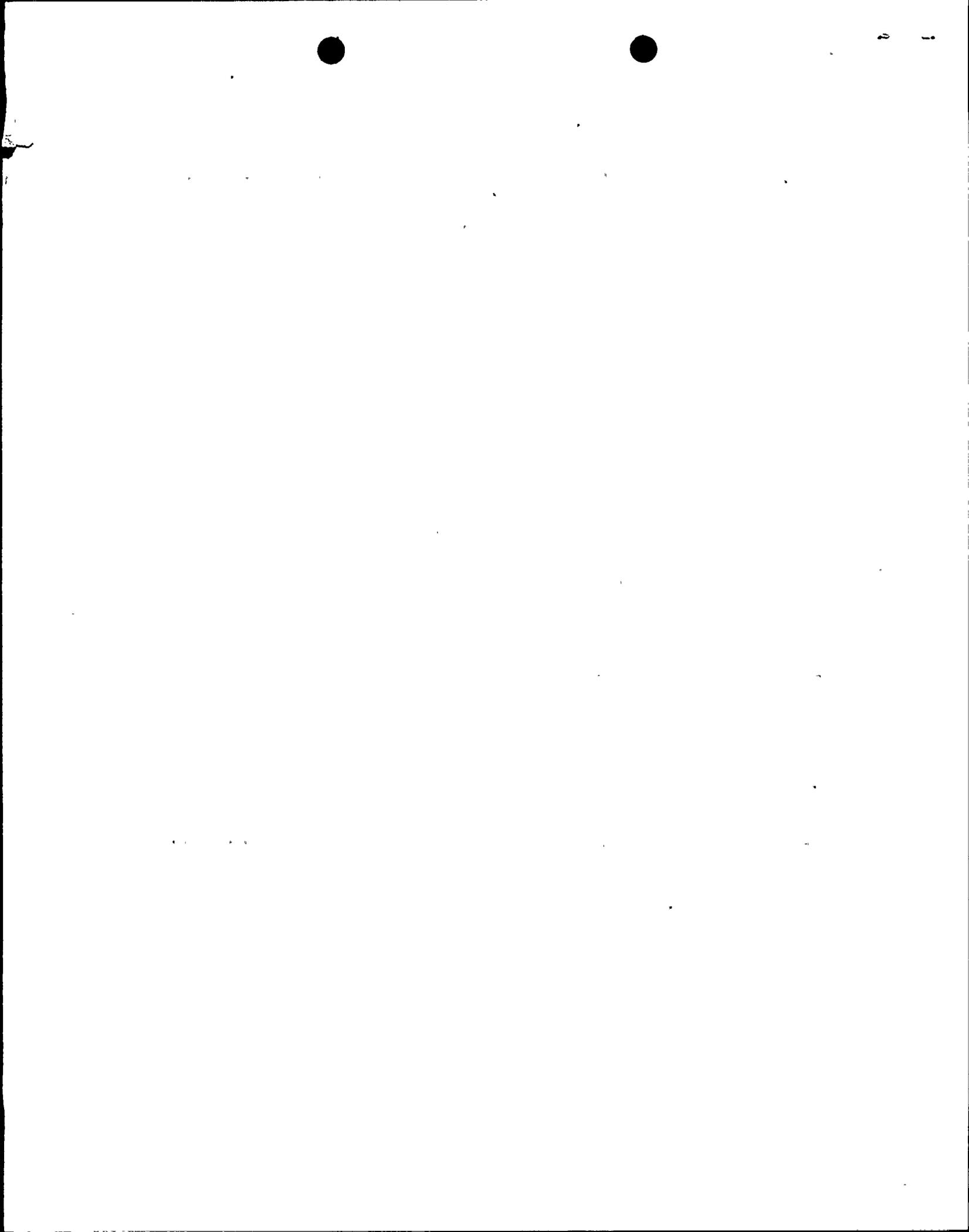
1) SEA is presently attempting to arrange for expert witnesses who may testify on all listed contentions. All requested information will be provided when available.

2) SEA has not yet compiled a list of documents which will be used in presenting a direct case or cross-examining of witnesses. However, a list of such documents will be provided when available. Also, such documents will be made available for inspection and copying.

MOTION FOR PROTECTIVE ORDER PURSUANT TO  
10 CFR 2.740(c) FOR INTERROGATORIES ON CONTENTION 1

Intervenor, SEA, moves for a protective order for this Interrogatory on the following grounds:

1. The Interrogatory is oppressive, unduly burdensome, and constitutes harassment of the intervenor, SEA.
2. The Interrogatory involves undue burden and expense to the Intervenor, SEA. SEA does not have paid scientists on staff or access to volunteer scientists who would be capable of answering these questions concerning Radon-222. SEA would have to hire scientists to do so. Such action is beyond the financial capability of SEA. Many hours - at least 100<sup>+</sup> of study and research would be necessary to answer these questions. This would involve the expenditure of \$2,500 to \$5,000 by SEA to answer this question alone. Since SEA has already been denied funds which would enable it to participate in these proceedings in a much more effective way - by the Board - the same Board should not now close its eyes to reality and order SEA to do something which it clearly cannot do.
3. This Interrogatory is far beyond the ability of the average citizens group or intervenor to answer. Thus, a protective order should be granted by the Board.



NRC - INTERROGATORIES (Uranium Fuel Requirements)

Contention III

1) U.S. known uranium reserves are sufficient to fuel only 57 1,000-MW reactors now operating, for their lifetimes.

- 2) a. According to a 1976 U.S. ERDA report, the U.S. has only 640,000 tons of known uranium reserves recoverable at a cost of \$30 per pound, or \$19,200,000/reserves worth.  
b. Lifetime fuel requirements of SSES (both reactors) would approximate 16,725 tons of uranium. (278.75 tons per year for 30-year lifespan per reactor.)  
c. Question unclear - more time needed to answer.

3) All uranium required for SSES will have to be imported. The known uranium reserves in U.S. are already ear-marked for lifetime fuel requirements of only 57 presently-operational reactors. Approximately 16,725 tons of uranium will be needed from foreign supply.

4) U.S. known reserves equal 640,000 tons of uranium. It is approximated that 11,150 tons would be needed to fuel a reactor for a 40-year lifetime (reactors presently operating).  
640,000 tons reserves ÷ 11,150 tons/reactor equals 57 reactors now being fueled by present reserves.

8,362.5 tons per reactor for 30-year lifespan, X 2 reactors - 16,725 tons to be imported

5) General Electric and Westinghouse now supply more than 70% of the world's reactor market, which means uranium supplies are also committed world-wide. In the late 1960's, GE (supplier of fuel for SSES) projected long-term uranium prices at around \$4 to \$4.50 per pound. Domestic uranium bids in 1980 are estimated at \$52/pound for reactor fueling, according to the Nuclear Exchange Corp. of Menlo Park, Calif. GE could price SSES out of the running.

Domestic and foreign uranium suppliers are largely controlled by Big Oil (Exxon, Gulf), which means any drastic, unforeseen price increase will result in default of supply contracts (as Westinghouse defaulted in 1975, resulting in a lawsuit by at least 12 utilities demanding fulfillment of the fuel contract). The same could very well happen with GE supplying SSES.

Uranium imports would depend on the cooperation of the international uranium cartel, which could escalate cost of uranium much the same as OPEC does with oil. Such a uranium cartel could also enact embargoes against the U.S., plunging this country into an even worse energy crisis if we commit ourselves totally to a nuclear dependence.

Our other alternative would be to rely on a lower-grade domestic uranium, which would cost upwards of \$100/pound, due to the inaccessibility of the ore. The cost of running SSES would become more prohibitive each year; it would benefit the utility if it converted to coal now, rather than when it is backed into a corner later, with no uranium fuel left to keep the plant running.

All sources: "Nuclear Power: The Unviable Option," John J. Berger.

NRC - INTERROGATORIES (Power Supply & Generating Capacity)  
Contention IV

1) It is our contention that peak electric load projections made by the utility industry have been consistently overstated. SEA believes that a low level projection nationwide is more reasonable. SEA believes a growth rate of less than 3% is not unreasonable over the life of the Susquehanna facility.

2) Facilities available to meet PP&L's customers needs during the next 30 years include the facilities listed in Table 1.11-8, Environmental Report, Vol. I, May 1979, plus the generating capacity of the PJM interconnection and the MAAC region with the planned non-nuclear additions. Peak load projections are discussed above.

3) "Peak load" calculations were made by extrapolations of figures from studies, such as the Carlson/Freedman/Scott Report from Washington University, found at Environment, July/August 1979, Vol. 21, #6, pp. 6-37. "Available capacity" was determined as in 2. above.

4) It is our assertion that load growth projection made by the utility industry have been consistently overstated since "the oil embargo, the economic recession of 74-75, energy conservation efforts and other factors (which) have affected projections of load growth." (1.1, Volume I, Environmental Report--Operating License Stage.) "In 1974, although utilities had predicted an 8.8 percent increase in peak demand, the actual increase was only 1.6 percent. For 1978 the industry projected a 6.2 percent increase, but the actual growth in peak demand was only 2.7 percent." (Environment, July/August 1979, Vol. 21, #6, p.7).

Chairman of the Board of Public Service Electric and Gas of New Jersey has stated to his stockholders on October 18, 1979, "With regard to growth in electric demand we saw a dramatic drop following the Arab oil embargo. In 1970, for example, our growth rate was 7.5% compared to 2.4% this year, and we are forecasting an annual rate of growth in peak demand between two and three percent for the next ten years." (From a PSEG pamphlet).

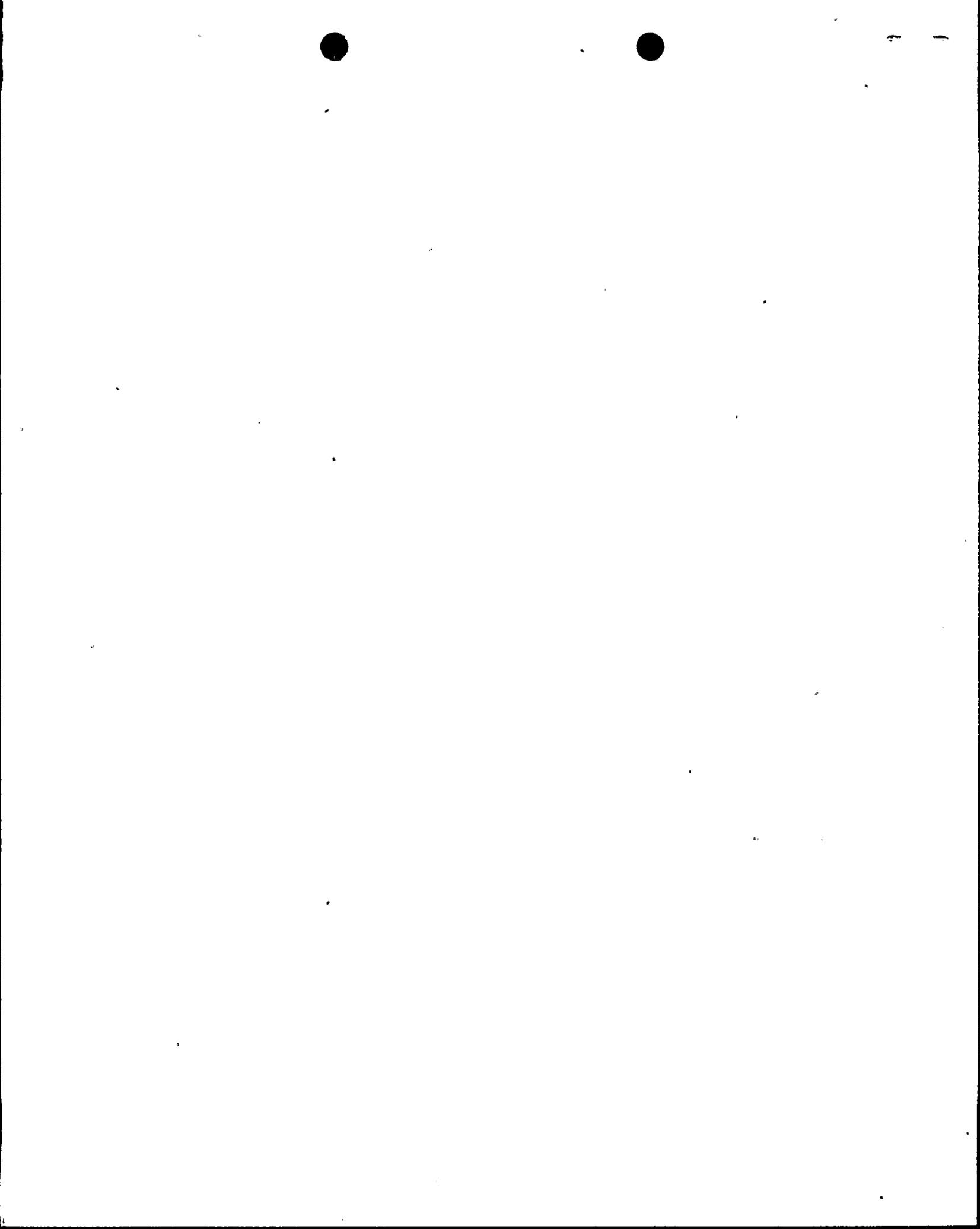
The Applicant is using what it refers to as the mid-range growth projection of 5.3%, which is consistent with National Electric Reliability Council projections of the national average. PP&L does admit that, "as previously noted, however, there are indications that the Applicant's upcoming load projections may be reduced from presently indicated levels." (1.1-2, Environmental Report, Vol. I, May 1978.)

We believe that the Low Level projection nationwide is more reasonable, and we cite the Carlson/Freedman/Scott study which has come out of Washington University:

Our analysis of growth patterns since 1973 indicates that a 5.3% projected rate of growth in peak demand is unrealistically high in an era of rising electricity prices. The 20 year period of sustained 7-10 per cent annual growth in electric sales which were constantly declining in current dollars, and even more so in terms of real dollars (discounted for inflation). Hence the rates of growth over the past 5 years, during which real electric rates have constantly risen for the first time in recent history, constitutes a much more reliable base for estimating future demands than long-term trends. Recent electric consumption behavior also reflects overall annual rates of economic growth which are lower than those of the 50's and 60's and which more closely resemble the low economic growth rates that are currently being predicted by the Administration and the business community for the 1980's. Our computations of the average annual rates of growth in peak and total demand for electricity for the years 1973-1978 indicate that, on average, peak demand will increase by 3.5%, total consumption by 3.6%. (Environment, p. 12 )

The 3.5 and 3.6 percent figures are nationwide averages, but when the Carlson/Freedman/Scott report examined each of the nine NERC bulk power areas, it found that the average annual growth in peak demand 1979-1987 would be 0.51% for the NAAC--Mic-Atlantic Area Council, of which PP&L is a part, instead of the 3.52% predicted by the NERC. And that NERC figure of 3.52% for average annual growth in peak demands for PP&L's region approximates PP&L's low growth scenario-figure whereas the Washington University report predicts much lower regional growth than even PP&L's very low growth scenario.





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ALLGHEHNY ELECTRIC COOPERATIVE, INC. )  
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Docket Nos. 50-387  
50-388

SERVICE LIST

Secretary of the Commission  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Charles Bechhoefer, Esquire  
Chairman  
Atomic Safety and Licensing  
Board Panel

U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Mr. Glenn O. Bright.  
Atomic Safety and Licensing  
Board Panel  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Dr. Oscar H. Paris  
Atomic Safety and Licensing  
Board Panel  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Atomic Safety and Licensing  
Board Panel  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Atomic Safety and Licensing Appeal  
Board Panel  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

James M. Cutchin, IV, Esquire  
Office of the Executive Legal  
Director  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Docketing and Service Section  
Office of the Secretary  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Dr. Judith E. Johnsrud  
Co-Director  
Environmental Coalition on  
Nuclear Power  
433 Orlando Avenue  
State College, Pennsylvania 16801

Susquehanna Environmental Advocates  
c/o Gerald Schultz, Esquire  
500 South River Street  
Wilkes-Barre, Pennsylvania 18702

Mrs. Irene Lemanowicz, Chairman  
The Citizens Against Nuclear Danger  
Post Office Box 377  
R. D. 1  
Berwick, Pennsylvania 18603

Ms. Colleen Marsh  
558 A, R. D. #4  
Mt. Top, Pennsylvania 18707

Mr. Thomas M. Gerusky, Director  
Bureau of Radiation Protection  
Department of Environmental Resources  
Commonwealth of Pennsylvania  
P. O. Box 2063  
Harrisburg, Pennsylvania 17120

Mr. Jay Silberg, Esquire  
Shaw, Potts, Pittman, and Trowbridge  
1800 M Street NW  
Washington, D.C. 20036