











No. 79-3265

ing Date 12/6/79

NRC SECRETARIAT

- TO:  Commissioner \_\_\_\_\_ Date \_\_\_\_\_
- Exec. Dir./Oper.  Gen. Counsel
- Cong. Liaison  Solicitor
- Public Affairs  Secretary
- \_\_\_\_\_

Incoming: William G. Warden IV

From: Lewisburg, PA

To: Ahearne Date 12/3/79

Subject: re the pros & cons of nuclear power

Prepare reply for signature of:

- Chairman
- Commissioner Ahearne
- EDO, GC, CL, SOL, PA, SECY Date due Comm: Dec 20
- Signature block omitted
- \_\_\_\_\_
- Return original of incoming with response

- For direct reply\*
- For appropriate action
- For information
- For recommendation

Rec'd Off. EDO

Date 12-7-79

Time 11:00

Remarks: NOTE: DRAFT REPLY PER AHEARNE

For the Commission: Billie

\*Send three (3) copies of reply to Secy Mail Facility



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32 St. Anthony Street  
Lewisburg, PA 17837  
December 3, 1979

Mr. John F. Ahearne  
Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Ahearne,

I am a student at Bucknell University and I'm writing to you in order to express my views on nuclear power. I'm addressing this letter specifically to you because we met last April at Clarie Nader's Institute for Public Awareness. The occasion was an information exchange between yourself and a small group of scientists and public interest groups.

Before Three Mile Island I was unaware, and admittedly, largely unconcerned about the existence of nuclear power. Since that time I've spent some time looking into the facts concerning this issue. Unfortunately, these "facts" are often difficult to come by as they are usually put out by either the "pro" or the "anti" groups which have their own special interests as to the development of nuclear power. For this reason I've found that there is very little objectivity in this sort of information, and persons like myself must try to synthesize as much truth as possible from the complicated and often contradictory information available.

I am currently enrolled in an environmental science course which has spent some time evaluating the Susquehanna Steam Electric Station. This involved evaluating the Draft Environmental Statement as well as visiting the plant. I am writing this letter in order to voice my concerns about aspects of this plant in particular, but many of these concerns carry over to the nuclear industry in general.

The D.E.S. addresses a wide variety of issues in its consideration of the S.S.E.S. Impressive amounts of data are presented to substantiate the findings of the D.E.S. But it is the quality, not the quantity of data which must be scrutinized.

One of the major concerns involved with nuclear power is obviously that of radiation hazards. The D.E.S. presents a great deal of information as to the risks associated with the use of radioactive material, but I question the validity of such data. My suspicions arise because of conversations I've had with Dr. Hans Veening who is currently professor of chemistry here at Bucknell. Dr. Veening spent more than a year at Oak Ridge studying radiation and he has told me that the scientific community is still very unsure as to both the long and short-term effects of radiation exposure. The diverse opinions and the contradictory findings of the scientific



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community over the past several years documents this uncertainty. For this reason I seriously question the presentation of radiation hazards in the D.E.S. as being fact. Such a presentation of information may have the reassuring appearance of documented fact, but once one looks to the lack of consensus in the scientific community, serious questions arise as to the truth of such data.

Another problem which the D.E.S. brings to light is the inability of the nuclear industry to plan for the future. This is a time when we must begin to look farther ahead than the next few years. The short-sighted approach of the nuclear industry is well documented in section 7-1 which concerns electrical demand. The S.S.E.S. was planned over a decade ago when electrical demand was increasing by 7% annually. Present demand, however, is increasing by only 1% annually, which supports the fact that there is no electrical shortage in the U.S. The D.O.E. has released data showing that there is between thirty and forty percent excess generating capacity above peak load. With this sort of excess capacity, all but six of the seventy-two licensed reactors could be shut down immediately with no shortage of electricity. I question the wisdom of pouring hundreds of billions of dollars into the ninety plants under construction, when future electrical demand is very uncertain.

Another section of the D.E.S. which requires revision is section 6-2 which deals with "Postulated Accidents and Occurrences." In this section, class 9 accidents aren't even considered because "the probability of their occurrence is judged so small that their environmental risk is extremely low." I remind you that Three Mile Island was ruled a class 9 accident. This requires the N.R.C. to fully consider the implications of such an accident, and the worst - case estimates of the WASH-1400 report must be standard consideration of all future Draft Environmental Statements.

So far my concerns have been directed at the D.E.S. One of my major concerns about nuclear power, however, is that it's just not an economical method of generating electricity. Before looking into the issue, I thought that the construction and generating costs represented the total cost of nuclear power. I found, however, that these costs are only a part of the total cost of nuclear power, and the public must ultimately bear the burden of all these costs.

Why weren't insurance companies willing to insure nuclear power? From what I've seen, insurance companies are among the most prudent assessors of risk, yet they weren't willing to accept the risk of insuring utilities which used nuclear power. The Price-Anderson Act has been used to protect the utilities against the risks which the insurance companies found too uncertain to deal with. Why can't the nuclear industry be treated like all other industries and be forced to insure themselves against the risks inherent in their

industry? The Price-Anderson Act appears to be a quite massive form of federal subsidy, with the public paying for expenses which should be paid for by the nuclear industry.

Other expenses which are being paid for by the public include research and development, and enrichment. Without these subsidies, the nuclear industry would be unable to function, yet they aren't required to pay for any part of these subsidies. Disposal of wastes will be extremely expensive and once again, the public will end up paying the bill for procedures which should be accounted for by the industry. Decommissioning is yet another area to which but scant attention has been paid, and this cost will certainly be quite expensive. Retrofitting and security are still more considerations which will significantly add to the total cost of nuclear power. All these "hidden expenses" are not presently taken into account by the industry, yet nobody can deny that they all must eventually be paid for. I believe that once the public realizes how much money is being spent on nuclear power, this form of generating electricity will be viewed as extremely expensive and inefficient.

Perhaps my greatest concern of all Mr. Ahearne, is the way the growth of nuclear power has proceeded. The public has all but been excluded from the decision-making processes which greatly affect their lives. As I started looking at government documents, I became extremely disturbed about the way major decisions were being made by small groups of people. Many of these decisions involve basic health issues, and these sorts of issues should never be decided by groups isolated from the public. As an example, I refer to a 1968 A.E.C. report on "The Genetic Effects of Radiation."

A 10% increase in mutation rate, whatever it might mean in personal suffering and public expense, is not likely to threaten the human race with extinction or even serious degradation. . . . (It) is bearable if we can convince ourselves that the alternative of abandoning radiation technology will cause still greater suffering.

If the number of those affected is increased, there would come a crucial point; or threshold, where the slack could no longer be taken up (by these not affected). The genetic load might increase to the point where the species as a whole would degenerate and fade toward extinction - a sort of 'racial radiation sickness.'

I don't know what gives any commission the right to decide such issues.

I hope I've been able to convey some of my concerns about the use of nuclear power. As stated previously, I've only just begun to look into this complex issue, but



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I am appalled by the lack of knowledge in an industry which by its very nature demands near perfection. I am also disturbed by the apparent lack of concern regarding the future. Hidden costs and dangers seem to be disregarded, while only the short-term benefits are considered. I hope you will realize that this letter is written by someone who is quite concerned about the future of our country, and I believe my sentiments are shared by many others.

Sincerely,

*William G. Warden IV*

William G. Warden IV

