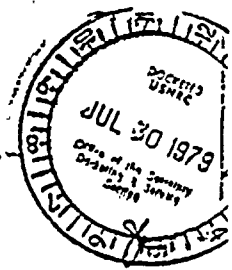


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RELATED CORRESPONDENCE

United States of America
Nuclear Regulatory Commission



Before The Atomic Safety And
Licensing Board.

NRC PUBLIC DOCUMENT ROOM

In the Matter of
Pennsylvania Power and Light Co. Docket Nos.
Allegheny ^{and} Electric Cooperative, Inc. 50-387
(Susquehanna Steam Electric Station, Unit 1) 50-388

Colleen Marsh et. al. Answers To
First Round Applicant Interrogatories

Reference is made to Appendix A,
10 C.F.R. entitled "Statement of
General Policy and Procedure etc."
where the Board is to ensure that
"in no event should the parties
be permitted to use discovery
procedures to conduct a "fishing
expedition." Obviously, the Applicant's
burdensome, oppressive, and
overwhelming requests upon
Colleen Marsh et. al. is such an
unnecessary "fishing expedition,"
and therefore, this Intervenor
moves this Board for a
Protective Order, under 10 C.F.R.
Section 2.740 (c) from such
questions not answered.

Colleen Marsh et. al. will
attempt to answer some of the
questions, and hope that in all
fairness you move for a Protective

Order, so that, as public citizens we may be allowed to participate in the public hearing. At that time, maybe experts will be available to help with questions.

Interrogatories on Contention 1A

1A-1-5 Colleen Marsh et al. had no reference to these questions in their petition. However, we would like to be able to answer them to your satisfaction, and may be able to, if an expert or experts are obtained by us in the future.

Interrogatories on Contention 1B

1B-1-4 See Answer to 1A-1-5.

Interrogatories on Contention 2

2-1-9 See Answer to 1A-1-5.

Interrogatories on Contention 3

3-1-3 Colleen Marsh et al. concur with E.C.N.P. on their answer to a similar question in the N.R.C. Staff's Discovery Request and answers to Contention 3, 3-3. 1-3.

3-2-4 See Answer to 1A-1-5

3-2-5 Colleen Marsh et al. do not believe a growth rate of nuclear generated electricity can be assumed

to remain at 32% during the 30 yr. life of the Susquehanna 1.2. (therefore it would be an answer without a purpose)

If this is of significance, Colleen Marsh et. al. feel that all of the statistics for answering the question are at the disposal of the Applicant since they may make a growth rate projection of this kind.

3-6 Colleen Marsh et. al. do not have this type of information calculated at this time, but I can assure you we are not shooting for any growth rate in nuclear power, because of the many health and safety and even economic problems that out weigh any possible worth the Applicant may see.

3-7 Colleen Marsh et. al. can not make a calculation of these questions at this time, but we hope an economist could make an estimate on what will happen at all of these time periods.

3-8 Colleen Marsh et. al. would like to have an expert on the side of the public, to answer this question, but we feel that there may be a relation in price.

increases. due to cost of living increases, and also, the increases in uranium prices may have to do with the amount of uranium available that will never be more than the amount that exists, unlike the renewable energy sources available to us.

3-9. See Colleen Marsh et. al. answer to Applicant's Interrogatories 1A-1-5.

3-10. Colleen Marsh et. al. mentioned where some of the answers came from, and that some of the answers require expert witnesses that are not available at this time, and that some are from general reading, an interest in the public, and thoughtful judgement about what would be best for, and may happen to, the future generations.

Interrogatories on Contention 4 A

4 A-1. Colleen Marsh et. al. are not sure which areas within the service area you might choose to serve, with the proposed units. We do know that within the original service area, before a nuclear power plant was ever considered, the people of the service area had no need for this power, up to the year 2,000 at least.

As stated, P. P. & L's Annual Report showed sufficient electricity for at least 30 years. By that time, solar, and other renewable sources will have taken their place in our energy program.

Existing electric power may be sold to TMI or areas as far as Philadelphia, N.J. or Maryland, and some of the other excess power, created by the nuclear facilities, if allowed to go on lines would be sold locally and elsewhere.

4. A-2 Growth rate will be slowed, leveled off or become non-existent.

(as a growth) if co-generation, conservation, solar, hydroelectric, wind, hydrogen and other renewable energy sources are allowed to take the position dangerous nuclear power plants (such as TMI and Peach Bottom and Dresden) now hold in govt. priority and spending.

4. A-3 See Answer to Applicant's Interrogatory 3-10

Interrogatories on Contention 4B

4-B-1 Colleen Marsh et. al. identify recent energy projections from a P. P. & L's annual report as at least a 40% greater than needed at least to the year 2,000.

4 B-2 Colleen Marsh et al. would like to identify them as the same ones. P. P. & L's Annual Report is referring to. We believe the Applicant made its claim based on existing facilities for the time period it mentioned. If, for some reason these facilities would become unavailable, P. P. & L. should look in the direction of the safest alternatives. (Probably conservation) They should continue their research on the wind turbine, and look for better locations for testing.

4 B-3 See Answer to Applicant's Interrogatories 3-10 Contention 3,

Interrogatories on Contention 4 C

4 C-1 Colleen Marsh et al. are aware of very few suggestions by the Applicant for a serious energy conservation program, since this would result in a decrease in growth rate of electricity, or even a zero growth rate. The Applicant's concern appears to be power use. It is their backbone, although it does not have to be their future, or ours. If the Applicant were to have acted in an efficient way, it would not be shipping electricity across wires for such

a great distance. Most of the energy generated by the turbines, powered by the nuclear fuel (that was created by the use of a great deal of energy) is wasted. We assume, in building the nuclear reactors 1 & 2, the Applicant would like to state (publically) that it is part of their way of conserving energy?

! ! A 2 billion plus capital intensive power plant is certainly an expensive direction for this area to be going, considering we have other choices, at our disposal, such as conservation, which uses the electricity produced more efficiently. Co-generation of coal plants, and factories would be one conservation technique that could be encouraged. Use of renewable sources of wind, and small hydroelectric stations would be safer and therefore cheaper in the long run. A 1,000 megawatt plant is enough for a city of 600,000 people (National Geographic, April 1979, Vol. 155, No. 4). P.P.T.'s planned reactors will have a 3,000 megawatt capacity, or enough for 1,800,000 people, a slight overshoot in our population need. For the area! Plus, we already have enough electric in our area, and it is safer and cheaper (N.I.R.S. May 1979). Electrically heated homes are a very

inefficient way to use our energy.

The sun is ready!

4C-2 Heat pumps are not that efficient or cheap. Colleen Marsh et al. have no record of how you encourage use at this time.

4C-3 Colleen Marsh et al. are only aware of a few conservation efforts by Applicant. Due to the fact that they advertise these efforts and continue to look for ways to branch out electrically (electricity is inefficient) we can't take their conservation program as more than putting on a show. (Trying to show to the public, look, we really are concerned about you.) With the conservation program for a front we believe, it is "aimed at encouraging continued electrical energy usage."

a) A windmill, solar experiments, radio announcement that ask people to do their part and conserve. (At the same time P.P.T. is seeking out areas to sell inefficient electricity to, and not practicing its own suggestion in all possible areas. There was a display in Hanover Bank (we believe it was P.P.T.) for a time, showing how to insulate. (It may or may not be that this is done through some govt subsidy.)

b) Weighing all benefits, (safety, health and cost savings), a serious conservation program involving discouragement of the use of inefficient electrical power wherever a substitute is possible, would be the best way to go. Conservation means more efficient use of energy for the job at hand. Also, solar would be excellent for heating homes, especially when combined with conservation practices, such as insulating.

c. To not use what we use is efficient, and this is the principle behind a good conservation program. It's costs could go down, as the conservation practices were used, and the savings is recognized by the coinciding energy savings.

Solar is at least as efficient as an electrical source (solar power stations) and has long term cost efficiency potential, when compared to all nuclear costs including decommissioning and waste storage.

Solar heating and cooling are also long term cost efficient. Why not take a little more from what God already uses to heat our earth?

4 C-4 Colleen Marsh et al do not have this information available for Applicant at this time, but would

like to point out that growth rate can partly be due to the encouragement of more available electrical energy, such as the access the Susquehanna 1 & 2 would create. A program of conservation and decrease of sales, could go into effect almost immediately, and have results of energy savings almost as fast.

4 C-6. Colleen Marsh et al. stress that energy conservation would be a certain benefit to health. If we conserve we will do away with use of nuclear power, and possibly other dangerous energies. This will decrease the pollutants produced by these energies that cause health problems such as cancers, and birth defects.

4 C-7. See Answer to Interrogatories 3-10 Contention 3.

Interrogatories on Contention 4D

4 D-1. Number one, there is no need for the electrical energy a nuclear facility of 3,000 megawatts could provide in our local consumer area. (Vince Taylor, Panheuristic Institute N.I.R.S. Groundswell May 1979 Vol 2, No 5, pg 10.) It is not an immediate alternative to nuclear that is needed, since there is no need for nuclear, or immediate power.

However, there are alternatives to any need for a change in our energy program.

4 D-2 Since there is no need for it (nuclear) an alternative to it is not needed! Only a transformation of reliance on presently used unrenowable energy to renewable energy is needed in our area (and surely elsewhere). Suggested renewable energy available for use would be conservation, (an efficient use of what we now use) solar heating and cooling, small scale hydro electric stations, wind powered electric facilities, hydrogen, etc.

"The President's Solar Domestic Policy Review Group predicted ^{that} solar could provide 20% of our U.S. energy needs by 2000. Either estimate provides more than enough energy to supplant nuclear power." (Groundswell Vol. 2 No. 5 May 1979, ref.)

Solar could be encouraged by making a transfer from electric heated to solar heated homes and buildings. There may not be the profit in this for a centralized utility company, but we do believe the transfer is necessary to decrease our electric use. Or, are we talking about power company profit alternatives, rather

than the needs of a community like Wilkes-Barre, far from T.M.I. New Jersey, and Philadelphia and their electrical needs.

With the doubts and fears nuclear raises after T.M.I. AND BEFORE, solar is a sensible source to begin tapping.

(Nuclear proponent experts may be sure, but that doesn't mean they are right.) If they were right, accidents, because cancer deaths will most likely occur

whether the blame goes to the nuclear industry where it belongs or not) accidents like T.M.I., Browns Ferry, West Valley N.Y., Dresden Plant, Enrico Fermi, and of course Three Mile Island, would not have occurred at all. But, the nuclear guinea pigs affected by these accidents continue to be bombarded with nuclear expert reassurances. The nerve!

40-3 Solar Power stations will be ready and the price will go down, (as it has for the newer voltaic cells when a new production method was discovered) Also, the power towers will be using a free energy supply, while the uranium is far from free.

b) Solar heating and cooling requires storage in rock, wall, or water, Solar electric requires

storage. Just as nuclear and present P.P.H. facilities do not store all of their energy, solar can not store all of its access. Solar electric could be tied in closely with a wind power plant. Solar electric energy is made from the heat from the sun being used to turn a turbine, just as the nuclear energy heat goes into turning a turbine. The difference is that solar heat would have naturally hit the earth anyway.

c) Colleen Marsh et. al. can not make an estimate of this question at this time.

d) Colleen Marsh et. al. believe the available renewable energies mentioned could replace all unrenewable energy used. If not, a long way down the road, all unrenewable energy would be drained from our precious earth.

4 D-4 Sec. Answers to Interrogatories
3-10 Contention 3

Interrogatories on Contention 5

5-1-6 Colleen Marsh et. al. do not refer to these particular questions in our contentions.

Interrogatories on Contention 6

G-1 Colleen Marsh et al do not have all information available for Applicants at this time. We need to review Fed. Reg. 43. Reg. 37473, and obtain an expert, if possible for a question of this sort. One comment that we wish to make at this time is that records of radiation doses from T.M. I do not appear to be in agreement. Also, a dose rate of a certain area is hard to pin point (even when it happens) since it blows with the wind, and all isn't known about God's wind. (I get this feeling from readings on wind charts.)

G-2 Colleen Marsh et al identify Rt. 11 as a narrow road, with narrower roads branching off of it. (they are also winding and hilly.) Maps are available in Applicants records of the area.

G-3 All the roads could be used, but none of them are adequate enough for a quick evacuation of 20-60 minutes or less.

G-4 The roads may or may not be all accounted for, we believe they could be, but they are not enough! If even one lane of the narrow roads were blocked

by landslide or an unexpected accident during a need for evacuation, chaos, and radiation exposures could occur for those who were unable to escape promptly!

6-5. A flooding of a road, causing blockage for cars is not uncommon to the areas around the plant. Even if this is accounted for it may not be enough in reality. Dirt slides from rain, very slippery roadways (for example while on Route 11 Colleen Marsh and other drivers were unable to go faster than 5-10 miles an hour on a winters day. It caused a lot of confusion with sliding, and I am glad it wasn't an evacuation day. I would imagine more winding, hilly, roads off of route 11 would have been more dangerous, and possibly harder to perform a real evacuation on, in a hurry.

6-6. Colleen Marsh et al. feel emergency plans account of weather conditions is inadequate in that they could not evacuate all of us under the bad conditions mentioned, in a hurry.

6-7. Colleen Marsh et al. are sure the Applicant has read the

"assigned functions" of the
Office of Radiological Health.

in the event of an emergency.

by now. We are certain the

Applicant does not need to get

this information from us due

to a lack of availability.

6-8 This question is not directed

to Colleen Marsh et al's contentions.

6-9-13 See 6-8.

6-14 Of the questions answered, see

3-10 Contention 3.

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Interrogatories on Contention 7 (a)

7a-1-4 Does not refer to

Colleen Marsh et al's contention.

7b Interrogatories on Contention 7b

Colleen Marsh et al. will try to

answer questions similar to this,

when asked about air sparger failures.

No information is prepared on

these interrogatories. 7b 1-4 at this

time. If experts become available,

we may answer them if possible.

7c 1-4 Colleen Marsh et al. do

not refer to this interrogatory in

their contentions.

7d 1-4 See answer to 7c 1-4

Interrogatories to Contention 8

8-1-6 See Answer 7c 1-4

Interrogatories on Contention 9

9-1 Elk River is the only fully decommissioned plant. It cost as much as construction to decommission. No Nukes, everyone's guide to nuclear power, says

"No one knows exactly how one of the new 1000-plus megawatt reactors could be dismantled, nor how much that would cost, but current estimates range from \$31 million to \$100 million

Presumably, the cost will be much higher later on when the late 1960 and 1970's reactors are ready for the trash-heap."

In 1973 the Applicant stated in its "Final Env. Statement" dated June 1973, at Table 9.2, that the total life time cost of this plant would be One billion twenty million dollars, which included, as set forth at 10.1 of the same statement, an assumed 50 million dollars expenditure for decommissioning.

Even the Staff states in its Draft Env. Statement, at Appendix D of the Benefit Cost Summary, a decommissioning cost of fifty nine million in 1975 dollars

However, in updating the increased cost of the facility and in...

the new light of health costs presently being argued on low level radiation, the Applicant's monetary and health costs are underestimated. The plants should be dismantled, and not left to be buried in cement or become decaying monuments reminding future generations of our mistakes.

9-2 We do not believe the plant should go on line, but if it did decommissioning could occur any time up to 2010. It is hard for Colleen Marsh et al. to give an estimate of monetary and health costs for the year 2010, but if we take into consideration the increased cost of the Susquehanna facility from its first estimated costs, the daily discovery of new health costs, and the inflated cost of a complete dismantling of a plant in 2010, the decommissioning costs could be as high or higher than one hundred million (look at Elk River).

Also, T.M.I. might help to bring to the surface new safety costs in dismantling a plant.

9-3 Colleen Marsh et al. feel that, since a plant this size has never been fully decommissioned and the small Elk River model has, showing

costs as much as construction monetary costs of decommissioning Susquehanna 1 & 2. In reality, could be at least equal to cost of construction

9-4 The "industry sponsored study" does not take into account the actual experience gained in completely dismantling a nuclear facility that has been radioactive for 30 yrs.

9-5 Colleen Marsh et al. feel that new low level radiation awareness and the Am. Cancer Society's increased concern for and increase in foreign particles and its effect on man, when taken into consideration with the larger quantities of contaminated dust particles to be confined at a larger facility are to be identified as the "new occupational or environmental hazard."

9-6 Answer to 9-5 explains some of the "serious radiation hazards, particularly for workers"

9-7 Colleen Marsh et al. concludes that Applicants are not financially qualified to assume the monetary costs of decommissioning. It is understood that under Pennsylvania Law the utility can only pass on facility costs to customers when

when the plant is in use, and producing electricity for the customers. Therefore, when the plant is shut down for decommissioning, the utility must pay for these costs from its earnings and other assets. The inflated decommissioning costs, could not be covered in a reasonable business manner by the utility.

9-8 See Answer Contention 3, 3-10.

Interrogatories to Contention 10

Colleen Marsh et al. do not refer to the accident at the Susquehanna facility in their contentions. Questions 10-1-5 do not apply to our original contention on this matter.

Interrogatories on Contention 11-14.

Please see the answers to N.R.C. questions on the subject of contention 11-14.

Interrogatories on Contentions 15-18

were not referred to by Colleen Marsh et al. in our contentions.

Interrogatories 19 a-c.

Witnesses have not been secured at this time.