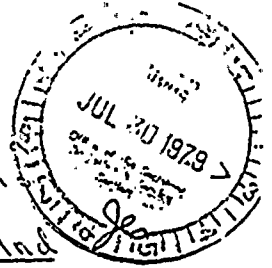


7/30/79
RELATED CORRESPONDENCE

United States of America
Nuclear Regulatory Commission

Before The Atomic Safety And
Licensing Board



In the matter of
Pennsylvania Power & Light Company
and
Allegheny Electric Cooperative, Inc.
(Susquehanna Steam Electric Station, Units 1 & 2)

Docket Nos.
50-387
50-388

Colleen Marsh et. al. Answers To
First Round N.R.C. Staff Interrogatories

General Questions

G-1. Colleen Marsh et. al., are in the process of trying to arrange for expert witnesses who may be able to testify on all of the contentions listed in G-1.

G-2. At this time, Colleen Marsh et. al. have not completed their listing of resource materials to be referred to in support of their contentions and for cross-examination.

Contention 4.

S-4.1. The growth rate of peak electric load that will occur for P.P. & L. over the life of the Susquehanna facility, depends greatly on whether the Applicant plans to promote the sale of electricity or to practice conservation and seek a growth rate of zero.

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S-4.2. 2-4 Answers to these questions will depend on the course of action taken by the Applicant in the matter of the promotion of either increased usage or conservation of electrical power.

Contention 6

S-6.1 All known events, to date, should be seriously taken into account in the event of a nuclear accident. This should include the accident at Three Mile Island, which established the class 9 accidents, due to design, construction, operation, and as yet, undetermined causes that can occur. Colleen Marsh et. al. concur with the response made by E.C.N.P. on this question.

S-6.2 See answer to S-6.1.

S-6.3 Colleen Marsh et. al. are concerned because radiation data collected following the accident at Three Mile Island, has shown that existing models used in making dose-distance calculations, are not adequate in showing the accurate distribution of radiation emissions.

There seems to be serious reason for doubt as to whether any theoretical model can accurately predict in advance the behavior of the distribution of

radioactive releases.

S-6.4. Colleen Marsh et. al. feel that the emergency plan is incomplete if it denies the public a right to be adequately informed about an emergency involving their own safety. It will not increase the probability of injuries and loss of life or cause other

inconveniences or costs not commensurate with the benefit.

There might have been less hesitation on the part of the officials to evacuate the areas surrounding the T.M.I. plant, had the public been drilled in evacuation procedures.

In the event of a need for immediate evacuation from our surrounding area, drills and public education of an evacuation procedure would minimize the risk of panic, injuries and death.

Also, the roads, weather, and the fact that Pennsylvania is a woodsy area filled with hunters, fisherman, hikers, skiers, and farmers, has caused Colleen Marsh et. al. to conclude the evacuation plan is inadequate to protect all of the public in event of a need for quick emergencies.

S-6.5. The Applicants proposed emergency plan may satisfy the Commission's Regulations, but the T.M.I. accident shows that situations previously thought to be statistically outside the range of possibility, can occur, and there is serious doubt that existing Regulations can insure the protection of the public.

Contention 9.

S-9.1. The only plant that was fully decommissioned to date, was the experimental reactor at Elk River in Minnesota, and the costs of decommissioning were equal to the cost of construction. A larger facility, such as Susquehanna 1 & 2, would be more expensive to fully decommission. The estimate could depend on the final construction costs for Susquehanna 1 & 2.

S-9.2. Decommissioning of a plant the size of Susquehanna 1 & 2 has never been accomplished. The specific procedures and materials for a large plant decommissioning have yet to be determined. Therefore, in reality, an itemized list of decommissioning costs can not be at this time.

S-9.3. See S-9.1-2 for part of the answer.

The Susquehanna facility that is planned would have a 3,000 megawatt capacity.

A statement from 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."

New health costs that may need to be included as part of nuclear costs would be another part of Colleen Marsh et al's bases for believing monetary costs of the decommissioning of Susquehanna 1.2.2 are not adequately considered.

S-9.4. A nuclear plant that is to be decommissioned after approx. 30 yrs. is contaminated with dangerous substances. The dust particles would have to be confined, but not all of the contamination could be confined.

This would result in serious radiation hazards.

S-9.5-6 Similar questions were asked by the Applicant, and answers to these can be found in Colleen Marsh et al., answer to the Applicant's Interrogatories. Contention 9 9-5 - 9-6.

S-9.7 Decommissioning is still in an experimental stage as far as determining the safest long-term method. Decommissioning costs for a plant, not yet in operation with a life span of approx. 30 yrs., could sky rocket by the time they are put into effect. There are many unknowns in the nuclear power industry (as shown by the unexpected costs experienced at T.M.I.) including the total health effects and costs such as those from mill tailings, that will arise. The cost of the storage of the waste produced by the Applicant's facility must also be considered as part of the cost-benefit balance. These are some of the reasons Colleen Marsh et al. believe the cost-benefit balance is tilted against authorizing operation of the facility.

Contention 10

S-10.1. The petition of Colleen Marsh et al. does not contain a reference to the accident at the Susquehanna facility.

S-10.2-5. Does not apply to Colleen Marsh et al. original petition.

Contention 11

S-11.1. (Colleen Marsh et al. would like to mention that we were talking about 10-15 yrs. longer than original estimates of 10 yrs., not 10-15 yrs. of "total on-site storage.") However, there could be possible unreasonable risk of harm to the health and safety of the public with the 10-15 yr. on-site storage, as the contention was redrafted by the board. Theft by an employee whose faulty character was not detected, could be one problem. The record of employee problems at other facilities (possibly even T.M.I.) would prove that it could happen at Susquehanna 1 & 2, and should be considered as an important reason for not allowing the facility to open.

An unreasonable risk of harm accident would depend on who they hired, and whether or not the storage facility is correctly operated. If spent fuel rods are placed too close together, a critical mass formation could occur. (taken from No Nukes, everyone's guide to nuclear power, South End Press, 1979.)

S-11.2. "Adequately" is to be read in the context of contention 11 with the phrase "...failed to adequately provide...", and is thus to be defined as Applicant having "failed to sufficiently provide."

Also, in the same light, it could be defined further as having failed to provide that which is sufficient for assuring public safety of all. Safe is to be defined as "free from danger or injury." "Unreasonable risk of harm" is to be defined as a risk of harm to person and property arising as a result of the facility which is excessive and shows little sense or good judgment.

S-11.3. - See Answer S-11.1.

S-11.4. That information should be provided by Applicant.

S-11.5. See S-11.4.

S-11.6. The 10 C.F.R. 20.1 or 10 C.F.R. 20.105 (a) may be violated if the facility is not properly operated (as suggested by Staff in Draft Env. Statement 4.5.3). In such a potentially dangerous facility, human error must be considered. In light of TMI, we must not leave room for human error. Also, although the Staff, as pointed out in The Draft Env. Statement, at 3.2.3, plans to issue "Technical Specifications in the future dealing with radioactive waste systems" to assure that the facility operates in conformance with the requirements, it is not known, therefore, at this time whether the plant will comply with 10 C.F.R. 20.1 et seq. standards.

S-11.7. The computations are not yet prepared.

Contention 12

S-12.1. Colleen Marsh et. al. believe that since flow-induced vibrations in the core have caused in-vessel sparger failure in other similar reactors, and such failures have

have not been resolved, a similar sparger failure could occur in the Susquehanna facility, and therefore could create an unreasonable risk of harm to the health and safety of the public.

Further information on this would have to be furnished by an expert witness not yet secured.

S-12.2. A "sparger", and "in-vessel sparger failure are terms that are common to the industry and are known to take place in boiling water reactors. A "sparger" is a large heavy-walled pipe designed to distribute fluid evenly within the vessel. An "in vessel sparger failure" is a flow-induced vibration problem. It could result in leakage of a fluid necessary for safe function within a vessel. As for "unreasonable risk of harm" see S-11-2.

S-12.3. Some of the known facilities include Northeast Utilities' Millstone Point Plant, Northern State Power's Monticello Plant, Commonwealth Edison's Dresden Plant.

S-12.4. All cases where there is an in vessel sparger failure create

very unsafe conditions that could result in endangering public health and safety. The fact that loss of life is not known to have occurred does not diminish the seriousness of this problem.

(They say that no immediate loss of life occurred at T.M.I.)

Colleen Marsh et al. feel part of the burden of proof that an accident of this nature will not result in serious consequences to the public health and safety lies with the Staff and Applicant.

S-12.5. Colleen Marsh et al. believe that this type of an failure could lead to an accident that would violate the 10 C.F.R. radiation standards. This area is still being researched further.

S-12.6 The computations are not yet prepared, and further details may depend on the intervenor's security experts in this area.

Some info. for Contention 12 is from a Testimony before Joint Committee on Atomic Energy, Feb. 18, 1976.

Contention 13
This contention is withdrawn as it appears N.R.C. has resolved this problem with Applicant.

Contention 14

The N.R.C. Board has allowed for the distortion of this Intervenor's contention to the extent that this petitioner can not even recognize the important point raised in the contention. The point was that the generation of electricity by nuclear power plants is unreasonably costly and uneconomical in relation to the cost of electricity generated by other forms of energy.

Since the N.R.C. attempts to cover this topic in the Staff's Draft Env. Statement, it would be appropriate to have this issue raised and heard at a public hearing.

Colleen Marsh and
Petitioners.

AFFIDAVIT

State of Pennsylvania
County of Luzerne

SS.

The undersigned, being duly sworn,
deposes and states that she is one
of the Interveners, and that the
facts there in contained are true
and correct to the best of her
knowledge and belief.

Colleen Marsh
Colleen Marsh et al

Sworn to and subscribed
before me this 20th day
of July, 1979.

Betty B. Dupperling

NOTARY PUBLIC
WILKES-BARRE, LUZERNE COUNTY, PA.
MY COMMISSION EXPIRES MAY 24, 1982



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