UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

TO: DIRECTOR OF NUCLEAR REACTOR REGULATION

RE: CONSTRUCTION PERMITS CPPR-135
CPPR-136

In the Matter of		
PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE, et al.	Docket Nos.	50-443 50-444
(Seabrook Station, Units 1 and 2)		

NEW ENGLAND COALITION ON NUCLEAR POLLUTION MEMORANDUM IN SUPPORT OF SEACOAST ANTI-POLLUTION LEAGUE REQUESTS FOR ORDERS TO SHOW CAUSE WHY CONSTRUCTION PERMITS SHOULD NOT BE SUSPENDED OR REVOKED

The New England Coalition on Nuclear Pollution (NECNP), an Intervenor in the proceedings concerning the issuance of a construction permit for the Seabrook nuclear reactor, joins the Seacoast Anti-Pollution League (SAPL) in requesting the issuance of an order to show cause why the Seabrook construction permits should not be suspended or revoked for the following reasons: (1) there is no basis for the Commission's finding that it has "reasonable assurance" that Public Service Company of New Hampshire is financially qualified, (2) the Commission has failed to consider the consequences of a Class 9 accident, which has now been demonstrated to be a credible event, and (3) the Commission has failed to require the preparation of an evacuation plan beyond the low population zone despite the fact that evacuation well beyond the LPZ has

been considered to be advisable and, in fact, has been required as the result of a nuclear reactor accident.

SAPL raised the first of these issues in its Request for an Order to Show Cause dated March 12, 1979. It raised the second and third issues in its Request dated May 2, 1979. NECNP joins in the arguments presented by SAPL in those Requests, and it submits this Memorandum to bring those Requests up to date and to present its own arguments on these issues.

I. As a Result of Changed Circumstances, There Is No Present Basis for a Finding That the Applicants are Financially Qualified Under 10 CFR 50.33(f).

When the Nuclear Regulatory Commission affirmed the Appeal Board's finding that Public Service Company of New Hampshire ("Public Service or "the Company") was financially qualified to construct the Seabrook plant, the inclusion of "construction work in progress" (CWIP) in the rate base was still a possibility, and the participation of the other utilities was reasonably certain. That situation has now changed, with the result that the Commission must halt construction at the plant pending a further showing of financial qualifications by Public Service.

Given Public Service's continuing financial weakness and given Public Service's reliance upon various utilities that may not be allowed to purchase more of the plant, there is no present basis for concluding that Public Service and the other applicants are financially qualified

to construct the plant. A comparison of the Preliminary Prospectus issued by Public Service, dated April 26, 1979, and the final Prospectus is instructive. After noting its efforts to obtain a nuclear fuel lease financing and to obtain further long-term bank credit, the Company sanguinely explained, at page 6 of the Preliminary Prospectus, that:

> After the sale of the new Preferred Stock, the Company will need additional external financing before July, 1979 in order to maintain the Seabrook construction schedule and continue the company's business operations. This additional financing is expected to be provided by the nuclear fuel financing, the proposed long-term bank credits or the advance payments from certain of the other participants, or a combination of these. (Emphasis supplied)

At page 5 of the final Prospectus, Public Service had to admit that efforts to obtain further financing had fallen through:

> The Company is also exploring the possibility of obtaining additional funds through a sale of general and refunding mortgage bonds, loans from banks other than its existing revolving credit banks and nuclear fuel financing. One such other bank approached by the Company has declined to make such a loan and an institutional investor with whom the Company had commenced negotiating a nuclear fuel lease financing has terminated such negotiations. (Emphasis supplied)

Therefore, there is little prospect of obtaining the necessary financing through banks or investors. Based on the statement in the Preliminary Prospectus, advance payments from other participants are essential to construction of Seabrook. We cannot state the Company's difficulties better than it did itself at page 6 of the final Prospectus:

> There can be no assurance that the regulatory approvals for the proposed reduction in the Company's interest in the Seabrook project will be obtained or that the Company can obtain financing or advance payments in the necessary amounts or in a timely manner. Timely approvals and financing are essential to enable the Company to maintain its contruction program and continue its business operations.

In addition to admitting that its immediate financing needs are by no means assured, the Company here highlights a fact that prevents the NRC from being able to have any "reasonable assurance" that the applicants are financially qualified to contruct the plant. That fact is that efforts to sell at least 9.2% of the plant to utilities in Massachusetts and Vermont are subject to challenge and may well be denied. In particular, Connecticut Light and Power Company's sale of approximately 4.2% of the plant to New Bedford Gas and Edison Light Company, Montaup Electric Company, and Fitchburg Gas and Electric Light Company has been challenged by the Massachusetts Attorney General before the Massachusetts Department of Public Utilities.[1/] The Massachusetts DPU decided on June 28, 1979, (Attachment 1) that the Massachusetts Attorney General had raised serious

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1/ In Re D.P.U. 19739 and D.P.U. 19743, Investigation by the Department of the Joint Application of Montaup Electric Company, New Bedford Gas and Edison Light Company, Fitchburg Gas & Electric Light Company, and the Connecticut Light and Power Company under the General Laws, Chapter 164, Sections 97 and 101 as amended, in connection with Joint Ownership Participation in the Planning, Construction and Operation of Seabrook Units I and II in Seabrook, New Hampshire.

questions as to whether the purchases by New Bedford, Montaup, and Fitchburg were in the public interest. The DPU found that the record was not adequate to make a finding on that issue and ruled that the case should be consolidated with consideration of the more recent purchase request by New Bedford and Montaup. The DPU will take further evidence on the "public interest" issue in the consolidated proceeding.

The question that the Commission faces is whether the applicant has "a reasonable financing plan in the light of relevant circumstances." Public Service Company of New Hampshire, et al. (Seabrook Station, Units 1 and 2), CLI-78-1, 7 NRC 1 (January 6, 1978). The "relevant circumstances" have changed since the original finding was made. In addition to the Connecticut Light and Power attempt to sell its interest in the plant, which was referred to in the Commission's decision and which remains unresolved pending the outcome of the Massachusetts DPU litigation, Public Service is now attempting to sell an additional 22% of the plant, much of which will be subject to the same sort of challenge. Paraphrasing the First Circuit's affirmance of the Commission's decision as applied to the present situation, clearly the likelihood of Massachusetts or Vermont regulatory decisions unfavorable to Public Service's attempt to rebuild its collapsing financing plan are relevant to the question of whether the

applicant is financially qualified to construct the plant. New England Coalition on Nuclear Pollution v. U.S. Nuclear Regulatory Commission, 582 F.2d 87, fn. 9 at 93 (1st Cir. 1978). Given the Court's direction to consider relevant regulatory actions by the states and the requirement that the decision on financial qualifications reflect the relevant circumstances, the Commission must stay the construction permit until the applicant's financial qualification has been demonstrated through further licensing proceedings addressing the changed circumstances.

II. The Commission Must Consider the Consequences of a Class 9 Accident Occurring at Seabrook

The issue of whether the Commission must consider the consequences of Class 9 accidents in its environmental reviews has been argued many times before Licensing Boards, Appeal Boards, and the Federal Courts. To date, the Commission has not formally accepted its responsibility to consider the consequences of Class 9 accidents at land-based nuclear reactor. Recent developments, both within the Commission and at Three Mile Island, demonstrate the lack of any rational basis for the Commission's position.

SAPL has outlined the developments within the Commission that have undermined its position on Class 9 accidents. Most important is the Commission's repudiation of the Reactor Safety Study, WASH-1400, which formed the only even quasi-scientific basis for the Commission's position that Class 9 accidents were so improbable as to be "incre-

dible." Since the Commission's position on probabilities has been the only justification for the refusal to consider the consequences of Class 9 accidents, Offshore Power Systems, (Manufacturing License for Floating Nuclear Power Plants) ALAB-489, 8 NRC 194, 214 (1978), the repudiation of the basis for the probability determination renders that policy invalid.

NECNP joins in SAPL's arguments concerning developments with respect to the Reactor Safety Study, and with respect to the Staff recommendation, SECY-78-137, March 7, 1978, that Class 9 accidents be considered where population densities exceed the "trip levels" of Regulatory Guide 4.7. These developments indicate that the Commission and its Staff are uncomfortable with the decision that Class 9 accidents are so improbable that they need not be considered.

The accident at Three Mile Island has now shown that the Commission and its Staff have been correct in becoming uncomfortable with their position. According to the information available to date, the accident at Three Mile Island was one that had never been considered in designing the plant and one whose consequences exceeded those of the "design basis accident" - a classic Class 9.

The argument over consideration of Class 9 accidents stems from the Annex to form Appendix D to 10 CFR Part 50, which was issued as a proposed rule on December 1, 1971,

at 36 FR 22851. According to the preamble to the proposed Annex, it is to be considered "useful as interim guidance" until the Commission takes further action. The Commission has never done so, and the Annex remains a mere proposal. The definition of a Class 9 accident appears in the introduction to the Annex:

> The occurrences in Class 9 involve sequences of postulated successive failures more severe than those postulated for the design basis for protective systems and engineered safety features.

The discussions among the NRC Commissioners and Staff during the early days of the Three Mile Island incident establish that a Class 9 accident occurred at TMI.

In general terms, Edson Case, and Roger Mattson, explained that the accident had not been foreseen:

> Mr. Case: Now, one of the problems is to what degree could you control that mode? It is not designed to be controlled it is designed to be full out. The core is in a mode that this is just not designed for. (Tr. at 54)
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> * * *
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> Mr. Mattson: My best guess is that the core uncovered, stayed uncovered for a long period of time, we saw failure modes, the likes of which has never been analyzed.
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> * * *
>
> Dr. Mattson: We are still doing analyses with what we now understand the conditions, to see if we can try to estimate with the codes, what the condition of the core really is. It is a failure mode that has never been studied. It is just unbelievable. (Tr. at 77)
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> * * *

> Dr. Mattson: Well, my principal concern is that we have got an accident that we have never been designed to accommodate, and it's, in the best estimate, deteriorating slowly, and the most possimistic estimate it is on the threshold of turning bad. (Tr. at 83-84).

Transcripts of the Closed Commission Meeting for Friday, March 30, 1979. (Emphasis supplied). Here, suddenly, despite all of the Appeal Board rulings and the court victories, was an accident that refused to follow the Annex. The NRC was now outside its carefully constructed theory that it was able to predict all credible accident scenarios and, therefore, that it was able to require that all nuclear power plants be designed to prevent or protect against all of the scenarios. The incredible, or, in Dr. Mattson's words, "unbelievable," accident had occurred.

Dr. Mattson explained two ways in which the accident had exceeded the design basis established by the regulations. First, the actual release of radioactivity was greater than the size of the release assumed in calculating the size of the Low Population Zone:

> Dr. Mattson: We have driven out, by most estimates now, more than the TID assumption. It is a severely damaged core.
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> Voice: What's TID?
>
> Comm. Gilinsky: What is TID?
>
> Dr. Mattson: The dose assumption in the Part 100 citing review. TID 14844. Actually, it has been replaced by a couple of Reg. Guides and everybody knows it is the TID assump-

tions which is 25 percent of the total inventory of the fission products.

Comm. Gilinsky: That's for what, design basis accidents?

Dr. Mattson: Yes, sir.

Comm. Gilinsky: So we have exceeded that?

Dr. Mattson: We are working from very sketchy information, Vic, so ---

Comm. Gilinsky: But it is comparable.

Dr. Mattson: But it is comparable.

Id. at 78-79. (Emphasis supplied).

TID 14884, referred to by Dr. Mattson, is Technical Information Document 14844, March 23, 1962, noted in the site criteria regulations at 10 CFR 100.11. It contains the assumptions concerning the amount of radiation that will be released in the event of postulated accident. The assumptions are used to determine the size of the Low Population Zone and the Exclusion Area under §100.11. The import of Dr. Mattson's statement is that in this case the radiation released at TMI exceeded the amount assumed as the basis for determining the size of the LPZ and the exclusion area, which means that the accident was "more severe than those postulated for the design basis for protection systems and engineered safety features."

The second, and perhaps even clearer, example of the accident's having exceeded those postulated as the basis for the design of the plant is the fact that the amount of

hydrogen released by the fuel cladding vastly exceeded the maximum amount established as an acceptance criterion by 50 CFR 50.46(b)(3). Whereas that section requires the calculated amount of hydrogen that might be released to be no greater than 1% of the total amount that would be released if all of the metal in the cladding cylinders were to react, Dr. Mattson explained that between 10 - 30% was released at TMI:

> Dr. Mattson: The only thing that could explain this bubble is metal-water reaction. We just ran a calculation on that and it looks like Val Pedisco, he said 10 to 30 percent -- he used a couple of assumptions -- I guess I can't remember -- either 10 or 30 percent water reaction would explain the 1500 cubic feet of hydrogen that is there now, 1000 psi, but if there was a hydrogen explosion in addition to that, there could have been a lot more.

Id. at 80 - 81.

The accident at Three Mile Island is the kind of accident considered by the NRC to be virtually impossible. This is true regardless of the amount of radiation actually released, which is still in dispute and may never be known due to inadequate radiation monitoring. A single spark in the reactor vessel could have caused the hydrogen explosion that would have released vast amounts of radiation into the atmosphere and caused unthinkable disaster.

The question now is whether the Commission must consider the consequences of an accident such as the one that occurred at Three Mile Island, including the consequences of accidents

that result in massive releases of radiation to the atmosphere or in melting of the reactor core, both of which nearly occurred at TMI. The answer hinges on the well established proposition that the Commission must consider any events that are reasonably probable. In the Matters of Northern States Power Co. (Prairie Island Nuclear Generating Station, Units 1 and 2 and Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), ALAB-455, 7 NRC 41, 49 (1978). Three Mile Island has demonstrated that Class 9 accidents are at least reasonably probable.

The only issue that requires discussion is the remarkable confusion that continues to reign concerning the status of the proposed Annex to former Appendix D to Part 50. Simply put, the Annex has no status in the law. It is merely a rule that was proposed by the then Atomic Energy Commission, and on which neither the AEC nor the NRC has ever taken any action. As such, it governs nothing and cannot be considered as binding the Commission to its refusal to consider Class 9 accidents now that the basis for that refusal has been eliminated.

III. The Commission Must Consider the Feasibility of Evacuation Beyond the Boundary of the Low Population Zone for the Seabrook Plant.

The need to consider the consequences of a Class 9 accident is particularly acute at Seabrook because of the extreme difficulties of evacuating the nearby beach area

if such an accident were to occur. The real possibility of the occurrence of a Class 9 accident requires that the Commission consider the feasibility of such an evacuation beyond the low population zone since a Class 9 accident could result in radiation releases greatly in excess of the 10 CFR §100.11(a)(2) exposure limits used in calculating the size of the LPZ.

NECNP will not repeat SAPL's arguments on the evacuation issue here, except to emphasize that the proposed amendment to Appendix E to Part 50 published on August 23, 1978, at 43 FR 37473, which is to be considered as interim guidance, provides for consideration of evacuation beyond the LPZ in appropriate circumstances. The difficulties of evacuating the beaches plus the size of the summer population just beyond the LPZ render Seabrook an appropriate location to consider such an evacuation. Indeed, we would argue that the occurrence of the accident at Three Mile Island now makes consideration of such an evacuation appropriate at all reactors.

Three Mile Island requires consideration of evacuation beyond the LPZ for at least two reasons. The first, and more technical, is that the radiation release at TMI exceeded the amount used to calculate the size of the LPZ, as discussed above. The necessary result is that the size of the LPZ must be increased, or, in the alternative, that

The LPZ must be recognized as a highly artificial boundary that is not the true limit of any evacuation that may become necessary. That being the case, the NRC must consider the feasibility of evacuation beyond that limit.

The second lesson of Three Mile Island with respect to evacuation is that an evacuation actually occurred up to five and even ten miles away. True, the formally recommended evacuation involved only pregnant women and children, but the fact is that it covered a much greater area than anyone had planned for. This means that in considering the feasibility of evacuation of the LPZ itself, the NRC must at least take into account the fact that the actual evacuation will cover a much wider area and that evacuation routes and facilities will be strained far beyond what they would be if the evacuation were limited to the LPZ. More than that, however, it means that despite its regulations, the Commission believes evacuation beyond the LPZ to be advisable to assure the public health and safety. The Commission cannot have it both ways. If the evacuation at Three Mile Island was appropriate, the Commission must consider the feasibility and consequences of similar evacuations in determining whether to license any further reactors.

IV. Conclusion

For the reasons stated above, the New England Coalition on Nuclear Pollution joins the Seacoast Anti-Pollution

League in its Request for Orders to Show Cause and asks that the Director of Nuclear Reactor Regulation immediately issue an Order to Show Cause why the Seabrook construction permits should not be suspended pending:

(1) A determination of whether the applicant is financially capable of constructing the plant under existing circumstances,

(2) Analysis of the consequences of a Class 9 accident at Seabrook, and

(3) A determination that evacuation of persons within the 30 mile area surrounding the reactor is feasible.

Respectfully submitted,

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Dated:

ATTACHMENT A

The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

June 28, 1979

D.P.U. 19738

Joint Application of Montaup Electric Company and New Bedford Gas and Edison Light Company, and The Connecticut Light and Power Company, under G.L. c. 164, §§97 and 101, as amended, for approval by the Department of Public Utilities of the purchase by Montaup Electric Company and New Bedford Gas and Edison Light Company and the sale by The Connecticut Light and Power Company of certain property and a determination that the terms thereof are consistent with the public interest.

D.P.U. 19743

Joint Application of Fitchburg Gas and Electric Light Company and The Connecticut Light and Power Company, under G.L. c. 164, §§97 and 101, as amended, for approval by the Department of Public Utilities of the purchase by Fitchburg Gas and Electric Light Company of certain property and a determination that the terms thereof are consistent with the public interest.

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STATEMENT OF THE CASE

On September 22, 1978, New Bedford Gas & Edison Light Company ("New Bedford"), Montaup Electric Company ("Montaup") and The Connecticut Light & Power Company ("CL&P") filed a petition for approval of the sale by CL&P of a portion of its ownership interest in Seabrook Units I and II to New Bedford and Montaup (D.P.U. 19743). A similar petition was filed by CL&P and Fitchburg Gas & Electric Light Company ("Fitchburg") on September 25, 1979 (D.P.U. 19738).1/

On October 13, 1978, the Department ordered all of the Petitioners to file direct testimony in support of the applications by November 9, 1978. On November 16, 1978, the Department issued an order of notice scheduling a pre-hearing conference for December 11, 1978.

At this pre-hearing conference, the Attorney General filed a petition for intervention, which was subsequently granted. Information requests were submitted to the Petitioners by both the hearing officer and the Attorney General on December 4, 1978, and December 15, 1978, respectively.

Responses to the information requests were filed by January 15, 1979, and the first hearing was scheduled for February 13, 1979. At that hearing, a motion by Fitchburg to consolidate the two proceedings was granted.

Fourteen days of hearings were held, concluding on April 11, 1979. Briefs and Reply Briefs were filed by all parties with the Petitioners' Reply Briefs received on June 1, 1979.

1/ Hereinafter, New Bedford, Montaup, CL&P and Fitchburg are referred to collectively as the "Petitioners."

STANDARD FOR REVIEW

As the caption of this proceeding indicates, the companies' petitions have been brought pursuant to General Laws, Chapter 164, sections 97 and 101, as amended. Section 97 provides in pertinent part:

> ...any such domestic or foreign corporation or association may...sell any or all of its property to said first mentioned electric company, or merge and consolidate its capital stock and property with said first mentioned electric company; but, no such purchase and sale of any property exceeding thirty-five thousand dollars in value or merger and consolidation shall be valid or binding until the same and the terms thereof shall have been approved, at meetings called therefor, by vote of the holders of at least two-thirds of each class of stock outstanding and entitled to vote on the question of each of the contracting parties, and until the department, after notice and a public hearing, shall have approved the same and the terms thereof as consistent with the public interest. . . . (emphasis supplied)

Section 101 of Chapter 164 of the General Law Provides:

> All applications for the approval by the department of purchases and sales or consolidation under sections twenty-six, ninety-six, ninety-seven and one hundred shall be filed with the department within four months after the passage by the contracting companies of votes authorizing such purchase and sale or consolidation.

No issue has been raised concerning the timeliness of the companies' petitions as required in section 101. Therefore, we are left with the sole issue of deciding whether the proposed transfer is "consistent with the public interest" (G.L. c. 164, §97).

Not surprisingly, the parties urge us to apply widely differing standards in making our determination of consistency with the public interest. The Attorney General would have us take an expansive view and thus consider such factors as the need for power, available alternatives, ability to finance and the public health and safety issues

surrounding nuclear power. The nuclear power issues raised by the Attorney General include the possibility of a unit malfunction and concomitant off-site release of radioactivity, the problem of storage and disposal of spent fuel and the decommissioning process. On the other hand, the Petitioners urge a very narrow interpretation of public interest. They argue that we are constrained to approve the transfer absent an affirmative showing of harm to the interest of the public. They find the record totally lacking of such evidence.

In arguing his broad view of consistency with the public interest, the Attorney General relies heavily on Udall v. Federal Power Commission, 387 U.S. 428 (1967). In that case, the Supreme Court, in dealing with an FPC decision involving a license for a hydroelectric project in the Pacific Northwest, indicated that the issues relevant to the "public interest" for the purposes of the Federal Water Power Act of 1920, as amended by the Federal Power Act, 49 Stat. 842, include:

> future power demand and supply, alternative sources of power, the public interest in preserving reaches of wild rivers and wilderness areas, the preservation of anadromous fish for commercial and recreational purposes, and the protection of wildlife (at 450).

The Attorney General argues that the similarity of the issues involved in the granting of a license for the construction of a hydroelectric facility and those associated with the acquisition of a portion of a nuclear generating station require us to examine the same issues articulated by the Court in Udall. While we agree that the issues associated with the need for power, related alternatives and ability to finance may be similar, we cannot agree that consistency with the public interest

requires[2] us to consider the public health and safety issues surrounding nuclear power. Specifically, we do not find any support in Udall for the Attorney General's position because the Federal Water Power Act as amended specifically provides that the project

> shall be such as in the judgment of the Commission will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water-power development, and for other beneficial public uses, including recreational purposes. (16 USC §63 (a)) (emphasis supplied).

Thus, it appears that the Federal Power Commission was specifically required by its statute to extend its consideration beyond need for power, alternative sources of power and ability to finance and address such issues as water resource management and recreation. In the instant proceeding, G.L. c. 164, §97 does not require us to specifically address public health and safety, and we decline to do so in these cases.

In so holding, we do not intend to preclude consideration of health and safety issues in all proceedirgs brought pursuant to G.L. c. 164, §97. However, we do believe that the scope of this and similar proceedings should be limited to those issues over which the Department has some demonstrable jurisdiction. We believe that a serious question exists as to whether the regulation of nuclear power and its concomitant radiological health and safety issues have been totally pre-empted by the Federal Government through the Atomic Energy Act of 1954 as amended

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2/ Indeed we question whether we have any authority at all to regulate in the area of radiological health and safety. See Northern States Power Company v. State of Minnesota, 447 F2d 1143 (CA 8 1971), aff'd 405 U.S. 1035 (1972).

(42 USC §2011 et seq) and the regulations of the Nuclear Regulatory Commission (10 CFR §§0-199). (See fn. 2 supra). In light of this question and the silence of our statute on this matter we decline to address the nuclear health and safety issues argued by the Attorney General at this time.

Turning now to the standard of review argued by the Petitioners, we find ourselves in disagreement with their narrow interpretation of "consistent with the public interest." The Petitioners assert that the Department must approve the proposed transfer unless we have before us affirmative evidence of some sort of harm to the public interest. Moreover, they disassociate themselves from any notion that they bear the burden of proof in this proceeding, asserting instead that it is the Attorney General who bears the burden of proving harm to the public flowing from the proposed transaction.

We could not disagree more. The Petitioners have come to the Department seeking our approval of the proposed sale of interests in Seabrook Units I and II. They are the moving parties in this proceeding. The governing statute requires that the Department conduct a public hearing and approve the transaction only if we find it to be consistent with the public interest. Clearly the burden of establishing "consistency" rests with the moving parties. See Fryer v. Department of Public Utilities, 373 N.E. 2d 977 (1978); and Metropolitan District Commission v. Department of Public Utilities, 352 Mass. 18, 224 N.E. 2d 977 (1967). While we could not require the Companies to prove a negative, i.e. that there would be no harm to the public, Framingham v. Department of Public Utilities, 355 Mass. 138 (1969), we can and will require them to establish through credible evidence

that this proposal is consistent with the interests of the public in a reliable supply of electric power at just and reasonable rates. Therefore, before the Department can find that this transaction is consistent with the public interest, each of the Petitioners must demonstrate that there is a need for the amount of capacity sought to be acquired, that the acquisition represents the most economical available alternative and that the purchasing company has the ability to finance the proposed acquisition without imposing an undue burden upon its ability to provide service currently and in the future.

APPLICATION OF THE STANDARD TO THE PROPOSED PURCHASES

The combined additional investment in Seabrook I and II which would be assumed by the three Massachusetts utilities as a result of this transaction totals 133 million dollars. This entire amount will, with the approval of the Department, eventually be passed on to Massachusetts consumers. The impact of such increases on the ratepayers of these three companies will be substantial.

This places upon the Commission the obligation to consider very carefully the proposed transactions and to grant its approval only if persuaded that the Petitioners' evidence in this proceeding satisfies the standard for review set forth above.

Our examination of the record in this case has convinced us that the evidence presented by each of the companies does not provide a sufficient basis for making such a determination at this time. As we will discuss in more detail later, additional information is needed from each of the

three Massachusetts companies before an informed judgment on the merits of the transactions can be made.

Moreover, one major issue has been left largely unsolved; namely, the ability of Public Service Company of New Hampshire ("PSNH") to complete the Seabrook project. The importance of a satisfactory answer to this question can hardly be overstated. We do no more than state the obvious when we say that the ratepayers receive no benefit from these transactions unless the project is completed. In fact, should Seabrook I and II not be built, ratepayers would most likely be asked to bear the costs of both the unfinished Seabrook project and the construction of any new capacity needed to meet demand in the 1980's.

In this proceeding, there was no opportunity to question PSNH directly about the viability of the Seabrook project. We have only the assurances of the four applicants that the two units will be completed. In general, we would be most reluctant to rely solely on such assurances given the huge sums of money at stake. To do so now would be totally inappropriate since PSNH itself has petitioned this Department for approval of proposed sales of portions of its ownership interests to two of the Massachusetts utilities involved in this case.[3/]

3/ Joint application of Montaup Electric Company and New Bedford Gas & Edison Light Company, and of Public Service Company of New Hampshire, under G.L. c. 164, §§97 and 101, as amended, for approval by the Department of Public Utilities of the readjustment of certain interests in such property by Montaup Electric Company and New Bedford Cas and Edison Light Company and the corresponding reduction of the interest therein of Public Service Company of New Hampshire and a determination that the terms thereof are consistent with the public interest. (D.P.U. 20055)

On June 7, 1979, the Commission ordered PSNH to file direct testimony on the subject of the viability of the Seabrook project. Thus, the Commission will have the opportunity to explore this matter in the most recently opened proceeding involving PSNH itself without causing undue delay to any of the Petitioners.[4/] This PSNH proceeding also affords a convenient forum for examining the additional evidence we deem to be necessary before a finding can be made on whether these proposed transactions are consistent with the public interest. Accordingly, deferring a decision on the present petition and consolidating this case with the aforementioned petition of PSNH, Montaup and New Bedford is, in our judgment, the most reasonable course of action.[5/]

REQUESTS FOR ADDITIONAL INFORMATION

Each of the three areas included in the standard for review formulated by the Commission in this proceeding contains a myriad of complex and difficult issues. For example, demand forecasts require projections of many factors including population growth, economic trends and patterns of energy use. Although extensive testimony and exhibits have already been filed in this proceeding, a significant number of important issues have not been resolved to our satisfaction. These issues, about which additional information is sought, vary by company and are set forth below:

4/ The Commission is aware that the present Agreements for Transfer of Ownership Shares are scheduled to terminate on June 30, 1979. However, we also note that the initial offering letter sent by CL&P to the other Petitioners was dated December 22, 1975. In addition, the present Agreements were recently extended from December 31, 1978 to June 30, 1979.

5/ We previously denied a Motion for Consolidation by the Attorney General because we believed that we should attempt to reach a decision on the merits of this petition if possible. We have now examined the record in detail and have found that it is not adequate for that purpose.

FITCHBURG

A. Forecast: Please provide additional information to support the Company's assumptions in the following areas:

1. average annual kilowatthour consumption of existing non-space heating residential customers;

2. average annual kilowatthour consumption of new non-space heating customers;

3. number of new regular and space heating residential customers;

4. commercial energy forecast;

5. industrial energy forecast; and

6. peak load forecast.

B. Alternatives: Please recompute Exhibit F-4 using the General Electric Production Costing Model and the most current assumptions. 6/

C. Financial: Update Exhibit F-3 with most recent projections of income and construction expenditures. The new exhibit should reflect the current schedule for commercial production of each nuclear unit in which the Company has an interest. Adjust long-term and short-term interest expense to reflect the current market realities for such financing. Correct return on equity to reflect currently allowed levels. Provide schedule of earned return on equity and allowed return for the period 1975 to present. Adjust interest cost of preferred stock to reflect the current market realities for such financing. Explain methodology employed in forecasting internal funds, including forecast of operating expenses and income and associated assumptions. Itemize all other construction expenditures forecast in the exhibit and explain methodology employed.

6/ Mr. Garlick testified that this program is available to Fitchburg (Tr. 1758).

MONTAUP

A. Forecast: Please provide additional information to support the Company's assumptions in the following areas:

1. penetration rates, conversion rates and saturation rate increases of:

   a. space heating
   b. hot water heaters
   c. electric ranges
   d. electric dryers
   e. freezers
   f. air conditioners;

2. growth of "base use" for new and old customers;

3. growth in annual kilowatthour consumption due to unforeseen appliances;

4. effect of energy efficient appliances;

5. effect of time-of-use rates and load management;

6. effect of price elasticity;

7. future commercial/industrial consumption ratios; and

8. future annual load factors.

B. Alternatives: Please submit a study which employs a computerized production costing model and the Company's most current assumptions, including load growth, to estimate the costs of each of the following combinations of capacity:

1. baseline capacity [7/] plus purchase of CL&P's Seabrook share;

2. baseline capacity plus Somerset I and II;

3. baseline capacity plus Somerset III and IV; and

4. any other combinations of capacity which the Company believes are relevant.

C. Financial: Update Exhibit M-3 with most recent projections of income and construction expenditures. The new exhibit

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7/ Baseline capacity has been defined as the Company's expected generation mix excluding Somerset I and II, Somerset III and IV, CL&P owned Seabrook and other proposed Seabrook purchases.

should reflect the current schedule for commercial production of each nuclear unit in which the Company has an interest. Adjust long-term and short-term interest expense to reflect the current market realities for such financing. Correct return on equity to reflect currently allowed levels. Provide schedule of earned return on equity and allowed return for the period 1975 to present. Adjust interest cost of preferred stock to reflect the current market realities for such financing. Explain methodology employed in forecasting internal funds, including forecast of operating expenses and income associated assumptions. Itemize all other construction expenditures forecast in the exhibit and explain methodology employed. Sources and uses of funds statement for Brockton Edison for same period as that forecast in Exhibit M-3 with all supporting documentation requested above for Montaup's forecast.

NEW BEDFORD

A. Forecast: Please provide additional information to support the Company's assumptions in the following areas:

1. number of new residential customers;

2. number of new residential space heating customers;

3. average annual non-space heating residential consumption;

4. average annual new residential space heating consumption;

5. effects of conservation, load management, and time-of-use rates;

6. effect of price elasticity;

7. commercial energy consumption;

8. New Bedford "extreme weather" load factor; and

9. Cambridge "extreme condition" coincidence factor.

B. Provide all requested information for both New Bedford and Canal Electric.

Financial: Update Exhibit AG-106 with most recent projections of income and construction expenditures. The new exhibit should reflect the current schedule for commercial production of each nuclear unit in which the Company has an interest. Adjust long-term and short-term interest expense to reflect the current market realities for such financing. Correct return on equity to reflect currently allowed levels. Provide schedule of earned return on equity and allowed return for the period 1975 to present. Adjust interest cost of preferred stock to reflect the current market realities for such financing. Explain methodology employed in forecasting internal funds, including forecast of operating expenses and income and associated assumptions. Itemize all other construction expenditures forecast in the exhibit and explain methodology employed.

ORDER

Accordingly, after due notice, hearing, investigation and consideration, it is

ORDERED: that the instant petitions be consolidated for further hearing, investigation and consideration with the petition docketed as D.P.U. 20055.

By Order of the Department,

/s/ DORIS R. POTE

Doris R. Pote, Chairman

/s/ JON N. BONSALL

Jon N. Bonsall, Commissioner

/s/ GEORGE R. SPRAGUE

George R. Sprague, Commissioner

A true copy,
ATTEST:

Doris R. Pote, Chairman

Appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the order of the Commission be modified or set aside in whole or in part.

Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of the twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the clerk of said court. (Sec. 5, Chapter 25, G. L. Ter. Ed., as most recently amended by Chapter 485 of the Acts of 1971).

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE, et al.	)	Docket Nos. 50-443 50-444
(Seabrook Station, Units 1 and 2)	)	

CERTIFICATE OF SERVICE

I hereby certify that a copy of the "New England Coalition on Nuclear Pollution Memorandum in Support of Seacoast Anti-Pollution League Requests for Orders to Show Cause Why Construction Permits Should Not Be Suspended or Revoked" was mailed this 30th day of July 1979 to the following:

Victor Gilinsky, Commissioner
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Washington, D.C. 20555

Richard T. Kennedy, Commissioner
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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William S. Jordan, III