UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	:	
POWER AUTHORITY OF THE STATE OF NEW YORK	:	Docket No. 50-549
(Greene County Nuclear Power Plant)	:	

GREENE COUNTY'S INTERROGATORIES TO NRC STAFF AND STATEMENT IN SUPPORT THEREOF

Greene County, the Town and Village of Catskill and the Town and Village of Athens (collectively the "County") hereby request that the NRC Staff, pursuant to 10 CFR §2.720(h), answer the following interrogatories no later than March 9, 1979, in accordance with the Joint Order of the Atomic Safety and Licensing Board and Judge Cohen issued January 5, 1979.

For each response to the interrogatories attached, please identify the person or persons who prepared, or substantially contributed to the preparation of the response.

These interrogatories are being submitted directly to the NRC Staff (through its counsel) and, at the same time, to the Chairman of the Safety and Licensing Board as Presiding Officer pursuant to 10 CFR §2.720(h)(a)(ii).

Answers to these interrogatories are necessary to a proper decision in this proceeding and are not reasonably obtainable from any source other than the NRC Staff. The interrogatories elicit information with respect to the investigations, analyses, findings and conclusions conducted in connection with, made with respect to or revealed in Final Environmental Statement Related to Construction of Greene County Nuclear Power Plant, NUREG - 0512 (January 1979) ("FES"). The FES was issued by the NRC Staff on February 9, 1979 and the NRC Staff is in the best position to provide information regarding the FES. No other source can explain how the NRC Staff conducted its investigations and anslyses.

Dated: February 23, 1979

Respectfully submitted,

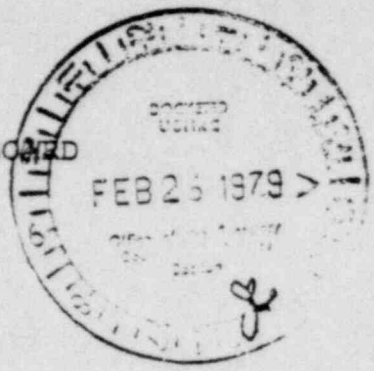
BUTZEL & KASS
Attorneys for Greene County et al

By Albert K Butzel
Albert K. Butzel

45 Rockefeller Plaza
New York, New York 10020
(212) 765-1800

cc: All Hearing Officers
Active Parties

RELATED CORRESPONDENCE



UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	:	
POWER AUTHORITY OF THE STATE OF NEW YORK	:	Docket No. 50-549
(Greene County Nuclear Power Plant)	:	

STATEMENT IN SUPPORT OF GREENE COUNTY'S REQUEST FOR THE PRODUCTION OF DOCUMENTS

The written interrogatories submitted to the NRC Staff by Greene County et al. include certain requests for documents. Pursuant to 10 CFR §2.744 of the Rules of Procedure of the Nuclear Regulatory Commission ("NRC"), Greene County hereby requests the Executive Director of Operations of the NRC to provide copies of the records and documents identified in those requests. The requested records and documents are necessary and relevant to this proceeding as they will elicit information with respect to the investigations, analyses, findings and conclusions conducted in connection with, made with respect to or revealed in the NRC Staff's Final Environmental Statement Related to Construction of Greene County Nuclear Power Plant, NUREG - 0512 (January 1979).

Dated: February 23, 1979

BUTZEL & KASS
Attorneys for Greene County et al.

By Albert K. Butzel
Albert K. Butzel

cc: All Hearings Officers
Active Parties

1. Provide us with copies of all documents and answers provided in response to the document requests and interrogatories of the Power Authority of the State of New York ("PASNY"). [We assume that many of the requests and questions will be objected to, given the overly-expansive nature of PASNY's demands. We will probably support any such objection. What we seek by this interrogatory is to ensure that we receive copies of whatever is ultimately furnished to PASNY.]

2. Please refer to pp. 2-12 through 2-14 of the Final Environmental Statement ("FES"), and refer also to the procedures required by 36 CFR Part 800 in respect of historical properties and related matters. In this connection, provide the following information:

A. Who, or what persons, have acted as, or fulfilled the responsibilities of, the "Agency Official" within the meaning of §800.3(h).

B. On what date or dates did the NRC begin its consultations with the State Historic Preservation Officer ("SHPO") pursuant to §800.4(a)(2).

C. Provide copies of all written correspondence and other communications between the SHPO (or his office) and the NRC relating to the proposed Greene County Nuclear Plant (the "Plant") (1) as located at Cementon and (2) as potentially located at Athens.

D. What area was determined to be "the area of the undertaking's potential environmental impact" within the meaning of §800.4(a)? How was this determined?

E. Identify each property in that area that was not on the Historical Register, but was determined to "possess historical, architectural, archeological or cultural value" within the meaning of §800.4(a)(2). Explain how these properties were selected, and identify any that may have been considered but were concluded not to be eligible for inclusion in the National Register?

F. Which of the properties described in the preceding answer has the NRC referred to the Secretary of Interior for an opinion regarding eligibility for inclusion in the National Register? Provide copies of

any written requests for such an opinion and indicate which proeprties the NRC determined apparently met the criteria and which were deemed questionable. [Answer this and preceding questions with reference to properties in the Athens area as well as those in and around Cementon.]

G. Provide copies of the Secretary of Interior's opinions with reqard to the eligibility of the properties referred to him.

3. If the NRC has not followed the procedures described in 36 CFR Part 800 (and Section 800.4 in particular), explain when, and how, it would expect to do so.

4. If the NRC has not followed the procedures described in Section 800.4, indicate generally what alternative procedures it has followed and whether these are deemed to be in substituti . for the procedures apparently prescribed by Section 800.4?

5. Please refer to page 2-44 of the FES. What is the estimated impact of Plant operation on the shortnose sturgeon and how has this been determined? In addition;

A. What steps, if any, have been taken to identify whether the area of the Plant constitutes part of the "critical habitat" of the shortnose sturgeon?

B. What steps, if any, has the NRC taken to comply with the Endangered Species Act in respect of the shortnose sturgeon? Among other things, has any evaluation or opinion been sought from the Department of Commerce, NOAA or NMFS?

C. Provide copies of all correspondence and other written materials which reflect the NRC's evaluation of Plant impact on the shortnose sturgeon and its efforts, if any, to comply with the Endangered Species Act.

6. Please refer to pages 3-19, 4-3 and 5-67 of the FES, relating to transmission lines.

A. Is it not the case that if the Plant were built at Cementon, the transmission lines would be visible from the Hudson River and from areas on the east bank of the Hudson?

B. Identify the length of the lines, and the number of towers, which would be visible from the Hudson and the east bank of the Hudson, including from the east shore railroad?

C. In respect of those portions of the lines which would be within view of the Hudson, identify the principal areas, including visually sensitive areas, from which they would be visible?

D. Will the lines and towers tend to further industrialize the appearance of the Hudson Valley if built as PASNY proposes? Please explain this answer.

7. Please refer to pages 4-18/21 of the FES, relating to socio-economic impacts within the Greene County area. In this connection:

A. How does the projected 14-20% in-mover rate compare to experience (i) elsewhere in New York State and (ii) elsewhere in the Eastern United States? If, as we bleieve, it is considerably below what has been experienced elsewhere (including in the Oswego area), explain the basis for the lower estimate for the Greene County plant.

B. The FES at pp. 4-20/21 indicates that added costs will be imposed on local jurisdictions as a result of increased schod enrollments. Please indicate the aggregate additional costs that would be imposed as a result of such increased enrollment, and provide the basis of the computations.

8. Please refer to pages 4-35/36 of the FES, relating to access road alternatives. In this connection:

A. Please explain how Alternative 2T can be regarded as acceptable in any respect, with or without mitigation. In particular, explain how the evidences of a temporary road through Austin Glen, and the environmental impacts that the excavation and other construction work would impose, could ever be undone?

B. On page 4-36, it is stated that "the road alignment for the 2T, 2TB and 1B bypasses is not considered acceptable because of the intrusion into Austin

Glen (Catskill Creek)." If this is so (as we believe it is), why is alternative 2T described as "acceptable with mitigation agreements" on p. 4-35.

C. What would be the total estimated cost of alternative 2T, including complete restoration of the Austin Glen area to its preexisting condition and complete removal of the driveways from Catskill and Saugerties?

9. Please refer to pp. 8-17/19 and Appendix K to the FES regarding delay costs. In this connection, indicate, in specific cost terms, the effects of the following altered assumptions:

A. a capacity factor for the Plant, during the three-years considered, of 50%.

B. a total capital cost for the Plant, in 1987 present value dollars, of (i) $2,500,000,000 and (ii) $3,000,000,000. (In this connection, also indicate how the 1987 present value costs given on p. 8-19 were computed, as compared to those for Case 2. If dollars are begun to be invested later, will this not reduce their effective cost? How, if at all, has this been taken into account?)

C. Explain the computation of 9.6×10^6 barrels of oil per year to generate 6,307,200,000 kw hr per year. What heat rate is assumed for this generation, and upon what basis? Have incremental heat rates been used? If not, why not?

10. Please refer to p. 9-2 of the FES? What consideration, if any, was given to retrofitting of existing oil-fuled generating facilities to provide additional power through co-generation or waste heat recovery?

11. Please refer to pp. 9-28/30 of the FES, regarding Upstate New York sites for the Plant. In this connection, provide answers to the following:

A. On what basis does the Staff believe it is "reasonable" to consider the Fitzpatrick site as "representative" of the potential and existing sites along the southern shorelines of Lake Erie and Lake Ontario?

B. Did the Staff make any investigation to ascertain whether any of the other Upstate sites would allow construction of a less costly nuclear plant than at Fitzpatrick? If so, describe the investigation. If not, explain why not.

C. On what basis has Staff projected transmission losses of 5% between the Fitzpatrick site and Leeds? Again, provide full particulars.

D. Accepting that a 1.0 mile/KwHr wheeling charge would be incurred form Fitzpatrick to Leeds, is this a true social cost? Isn't it the case that any such payments would simply go from PASNY to another utility, resulting in lower costs for the customers of that utility? So long as the transmission lines exist, isn't it the case that there are no additional costs to society incurred simply because they are more fully utilized? If this is so (or even partially so), then shouldn't the $59 million figure noted at p. 9-29 be eliminated?

E. Regarding the Staff's position that the center of power demand growth for 1986-91 is in the New York metropolitan area, provide the basis of this position and full back-up details. In particular, state whether the Staff treated PASNY's loads as separate from those of other utilities in New York. If so, explain how the electricity fails to intermix. Isn't the real issue how and where power flows within the State? Please explain how this was measured or taken into account by the Staff.

F. The Staff position rejecting Upstate sites appears to be based on the conclusion that transmission costs would be greater from Fitzpatrick or similar sites. Is it not the case, however, that the greater transmission costs could be offset by lower plant construction costs? If so, provide full details. If not, explain why not.

G. With respect to capital costs for a nuclear plant at the Fitzpatrick or other Upstate sites and comparing these to the projected costs for Cementon and Athens, explain how, if at all, the following costs were evaluated by the Staff.

(i) basic plant capital costs (labor and equipment)
(ii) cooling system costs (including possible use of once-through cooling at Lake Ontario sites)

(iii) road and access costs (compared particularly to the high costs of such facilities at Cementon)

(iv) land and condemnation costs (compared in particular to Lehigh)

(v) reductions in costs due to siting additional units at already utilized sites

(vi) opposition costs (i.e., the potential for further lenghty opposition to a plant at Cementon or Athens compared to the greater acceptance of plants in the Lake Ontario/ Lake Erie areas).

If any of the above factors were not taken into account and/or quantified, explain why not?

H. Referring to the Fitzpatrick site and the other Upstate sites identified at p. 9-29 of the FES, and using the same or similar standards to those employed in evaluating Hudson River Valley sites [see pp. 9-40/41], indicate which of such sites would be considered "preferrable" to Cementon and which would be regarded as "superior." [This question is posed independent of cost considerations related to transmission distances.]

12. Please refer to pp. 9-57/58 of the FES, regarding visual impacts of locating the Plant at Athens. In this connection, please indicate, insofar as possible:

A. From what locations in the Village of Athens will the cooling tower and plume be visible, and how much of the tower will be visible at each location?

B. From what look-out points along the Escarpment Trail will the cooling tower and plume be visible if the Plant is located at Athens?

C. From what locations in the City of Hudson Historic District* will the tower and plume be visible and how much of the tower will be visible at each location?

D. How many of the houses and buildings within the Hudson Historic District* will have a view of the cooling tower and plume?

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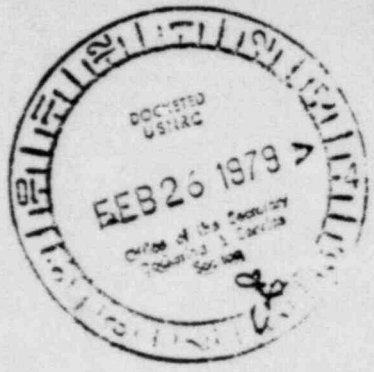
* i.e., Front Street -- Parade Hill -- Lower Warren Street Historic District.

E. Is it not the case that the Athens cooling tower and plume would be clearly visible from within Olana, and from porch areas, if the existing shrub/ tree line on the northwest were removed or should die?

F. Please provide any photogrpahs or other renderings which the NRC has prepared which depict or attempt to depict the visual impacts of the cooling tower and/or plume if the Plant were located at the Athens site.



NEW YORK STATE BOARD ON ELECTRIC GENERATION SITING AND THE ENVIRONMENT

U.S. NUCLEAR REGULATORY COMMISSION

- -x

POWER AUTHORITY OF THE STATE OF NEW YORK :

:

GREENE COUNTY NUCLEAR PLANT

- -x

Case 80006

Docket No. 50-549

INTERROGATORIES OF GREENE COUNTY ET AL. TO PSC STAFF

Greene County, the Town and Village of Catskill and the Town and Village of Athens (collectively, the "County") hereby submit document requests and interrogatories to the Staff of the Public Service Commission ("PSC") as follows:

A. Visual Impact of Greene County Nuclear Plant (Testimony of Smolinsky and Bishop)

1. Provide a copy of the testimony given by Mr. Smolinsky relative to visual impacts in Case 80004 (Arthur Kill Station), including his prepared direct testimony and such answers on cross examination as related to the Athens site.

2. Refer to p. 10 of the Bishop-Smolinsky testimony. Is there any record as to whether the tree plantings referred to at lines 15-21 existed when Church was alive or, if it did, whether it blocked views to the west and northwest?

3. If the tree plantings referred to above were cut down or should die, would a cooling tower at the Athens site be clearly visible from Olana? Provide a detailed description of how it would appear in its setting.

4. List the specific locations from which Bishop and/or Smolinsky viewed the Athens and Cementon sites, and specify the dates of each visit. If photographs were taken of relevant views, provide copies of them (with accompanying explanations).

5. Did Bishop and/or Smolinsky (or others on the PSC Staff) conduct any surveys of local citizen opinion, art historians or others with scenic expertise regarding the visual impact of the Green County Nuclear Plant (the "Plant"). If so, provide full details. If not, why not? And are the opinions given those solely of the witnesses?

6. Supply the assessment criteria, if any, against which the visual impact of the Plant was measured at each of the alternative sites (i.e., Cementon and Athens).

7. From what locations in the Village of Athens will the cooling tower and plume be visible if the Plant is located at Athens? How much of the tower will be visible at each location? Provide the basis for the statements given, including site line analyses and relevant photographs, if any.

8. From what lookout points along the Escarpment Trail and within the North Lake State Park will the tower and plume be visible if the Plant is located at Athens. If possible, provide a map showing the locations.

9. Is it not the case that views of an Athens cooling tower and plume from the Escarpment Trail would interrupt panoramas extending to the Berkshires? How was this taken into acccunt?

10. From what locations in the Hudson Historic Districts would the cooling tower and plume be visible if the Plant was located at Athens? How much of the tower would be visible at these locations, and how many historic buildings would be affected? Again, provide the basis for the statements given, including site line analyses and relevant photographs, if any.

11. Did Bishop and/or Smolinsky (or others on the PSC Staff) visit the Sleepy Hollow Lake Development? If so, on what dates?

12. How far is the Hudson Historic District from the Athens cooling tower, and how does this compare with the distance of Olana from Cementon?

13. Name the developments along Route 9W around the Athens site that limit the views of the cooling tower, and explain to what degree they limit such views? Which development(s) along Route 9W at the Athens site distract from the cooling Tower?

14. On what possible basis is it said that the visual impact of the Plant at Athens is "acceptable"? What does "acceptable" mean? Is the cooling tower thought to improve the view? Is it simply neutral? If it is neither of these, then what makes it "acceptable"? Against what factors are the visual impacts being weighed in reaching this conclusion? Please provide a detailed explanation of the analysis and thinking which underlies and leads to the conclusion of "acceptability."

15. Please indicate whether, in the view of Bishop and/or Smolinsky, any of the following would have considered the impacts of a cooling tower at Athens "acceptable": (A) George Washington, (B) Washington Irving, (C) James Fenimore Cooper, (D) Henry Hudson, (E) DeWitt Clinton, (F) John Dyson.

B. Conceptual Design and Engineering Economics (Testimony of Gordon and Lutzy)

16. Regarding the Regional Site Analyses described on pp. 6 et seq. of the Gordon/Lutzy testimony, did the Staff undertake an independent analysis of the relative merits of siting Upstate rather than at Cementon/Athens, or did it rather, as it appears, simply use the figures developed by the Power Authority of the State of New York ("PASNY"). If no independent analysis was made, explain why not.

17. Isn't it the case that the Table 1 Figures comparing the Plant in Greene County with the Fitzpatrick, Sterling and Sheridan/Pomfret sites are based entirely on PASNY's figures and include no discrete analysis by the PSC Staff?

18. Regarding the capital costs set forth in Table 1 for Fitzpatrick, Sterling and Sheridan/Pomfret sites, detail the make-up of these costs and the basis of their relationship to the costs shown for the Greene County Plant.

19. How were the following factors considered, and how are they accounted for, in the PSC analysis of Regional Site Economics:

A. The requisite cooling system in Greene County (closed cycle) versus the possibility of once-through cooling at the Fitzpatrick and Sterling sites.

B. The potential land and condemnation costs associated with the Cementon site (and particularly Lehigh).

C. Access road costs at Cementon, including those described by PSC witnesses Lilly et al.

D. Delay costs at Cementon due to opposition versus the easier siting process for Lake Ontario plants (e.g., Somerset, Sterling, Nine Mile Point).

20. Isn't it the case that plants at the Fitzpatrick and Sterling sites have been licensed without the requirement for closed cycle cooling? What investigations, if any, have the PSC Staff undertaken to determine whether less expensive cooling systems are possible at those plants, and what conclusions were reached in that regard.

21. What investigations has the Staff made of other site specific advantages or disadvantages of the Fitzpatrick, Sterling and Sheridan/Pomfret sites, which could affect the capital costs of nuclear plants at such locations. Please provide full details.

22. What investigation has the Staff made of the feasibility of siting the Plant at the Ginna site. Provide full details, including estimated costs on a basis comparable to that set out in Table 1. Consider, among other factors, the need for closed cycle cooling, the like costs of access roads, condemnation and land costs, and all other material items that could affect total capital costs.

23. Isn't it the case that by their nature, the Cementon and Athens sites require substantially higher plant capital costs investments than the Lake Ontario sites identified in Table 1 and at Ginna?

24. Isn't it the case that significant savings could be realized by siting the Plant at Fitzpatrick, Sterling or Ginna due to the lesser costs of constructing second and/or third units at the same site? Indeed, isn't this especially possible at Sterling where construction has yet

to begin on Unit 1? Please indicate whether the Staff has assessed this factor, and provide full details of its analysis. If no analysis has been made, please provide one now.

25. Please explain in detail the basis for, and computations that lead to, the transmission cost figures given in Table 1 for (A) Greene Co. Nuclear, (B) Fitzpatrick, (C) Sterling and (D) Sheridan/Pomfret. In particular, indicate what independent analyses, if any, the PSC Staff undertook of these costs.

26. If any "wheeling" costs are included in the total transmission cost figures, identify the amount. Isn't it the case that these are not true costs and should be excluded (i.e., isn't it the case that the payments would simply go from PASNY to another utility, resulting in lower costs for the customers of that utility)? So long as the transmission lines exist, isn't it the case that there are no or few additional costs to society incurred simply because the lines are more fully utilized?

27. To the extent that any of the transmission costs are associated alleged transmission losses, identify such costs and explain in detail the manner in which they were computed (including the basis of the losses themselves).

28. Regarding the "Economics of Delay", provide detailed back-up of how the $500 million and $700 million figures were developed? In particular, how were the Incremental Statewide Production Costs shown in Appendix I, Table 6, developed? What assumption went into these cost projections.

29. Upon what possible rational basis has the PSC Staff assumed an escalation rate (10%) greater than the discount rate (7%)? Using this scenario, isn't the conclusion that must follow this -- that all possible generating plants should be built immediately since they are becoming more costly year by year, even on a present worth basis.

30. Provide any other examples outside of the PSC where economic analyses have been based on escalation rates which are higher than the discount rate? Provide citations to economic texts or other papers which serve as justification for this extraordinary relationship.

31. How are lost social opportunity costs factored into the PSC analysis of delay costs. In this connection, refer to the NRC's Final Environmental Statement ("FES"), at p. 8-18. Explain how the PSC took this consideration into account or, if it did not, why it did not.

32. Please refer to p. 34 of the Gordon-Lutzy testimony, lines 10-13. Even if this contention were true, is it not improper to take this factor into account under Article VIII, since PASNY had no legal authorization to invest moneys in the project up to now? If added interest on construction is taken into account, then hasn't the Article VIII evaluation been biased by PASNY's investments in advance of certification when Article VIII assumes those investments to be made only after certification has been decided? Please explain your answer in full.

33. How were the transportation cost figures discussed at pp. 37-38 taken into account in the Regional Site Analysis?

34. Please refer to p. 40 of the Gordon-Lutzy testimony, lines 8-12. Isn't the thrust of these remarks as follows: PASNY has applied for an inferior site, but despite Article VIII, the Siting Board must take into account the costs that PASNY has incurred and will impose on customers due to its bad decision? How can such an approach be squared with Article VIII? Please provide a full explanation.

35. Please indicate the extent of contacts that Messrs. Gordon and/or Lutzy have had with PASNY over the past five years, identifying in particular all meetings that they have had with PASNY representatives or personnel since the Plant application was filed.

C. Land Use and Socioeconomic Impacts (Testimony of Lilley and Cummings)

36. Please refer to p. 7 of the Lilley/Cummings testimony, lines 21-23. Who is the "Director of State Planning" referred to, and on what basis is it stated that he has said that either Cementon or Athens are compatible sites for a nuclear power plant? Provide full details, including copies of any written communications to or from the "Director of State Planning" which bear on this issue.

37. Please refer to p. 16 of the Lilley/Cummings testimony, lines 21-22. What utility services are available at the Athens site?

38. Please refer to p. 55 of the Lilley/Cummings testimony, first paragraph. Describe in detail the charges in in-migrating workers, places of residences and local socio-economic impacts resulting from moving to one site or the other. Also define the words "minor" and "offsetting" used in lines 2 and 3 and show how these definitions relate to each of the changes described.

39. Based on the experience at Nine Mile Point #2, aren't the estimates for in-migration due to the Greene County Plant (18.4%) clearly understated? Please provide a full explanation, and if it is thought that the levels of in-migration are likely to be greater, provide best estimates of those levels.

40. Isn't it to be expected that the recent and prospective further increases in the price of gasoline will result in higher levels of in-migration than projected in the Staff testimony. Please explain.

41. To the extent that in-migration is likely to be greater than projected in the Staff testimony, generally describe the resulting consequences in Greene County and adjacent areas.

42. Please list specifically the negative socio-economic impacts that would be associated with construction of the Plant. Then provide for each of these a qualitative and quantative estimate of the magnitude of these impacts (converting to dollar terms, where possible). Finally indicate where migration would be possible (and where it would not be), how it could be assured, and what the likely costs to PASNY would be.

43. Please refer to pp. 123-126 of the Lilley/Cummings testimony. What are the solutions, if any, to the problems described there, and particularly the constitutional tax limits? What would the aggregate costs be to PASNY over the construction period if it were to make up the added municipal costs.

44. The discussion regarding "Impacts on Education", Testimony of Lilly/Cummings, pp. 126-134, is geared to the Catskill School District. Please provide similar analysis for other school districts in the "primary impact area", including, in particular, an analysis of costs in the Coxsackie/Athens School District and the Saugerties Central School District. What would the aggregate costs be to PASNY over the construction period if it were to make up the added school costs in all affected school districts.

45. Please refer to pp. 144-45 of the Lilley/Cummings testimony. What is the basis for rationing down the Hartsville mitigation program costs of $6.8 million to $1.5 million in Greene County? Please provide a full explanation, including the consideration given to (a) different costs of education in the two areas, (b) different costs of housing in the two areas, (c) different costs of labor in the two areas, (d) different governmental and municipal costs in the two areas, and (e) the different years in which the costs would be incurred (i.e., for Hartsville, they are being incurred now, but for the Plant, they would not be incurred until 1981 and after). Isn't it likely that mitigation costs will be far greater than $1.5 million?

46. What is the expected peak in-migration for the Hartsville project?

D. Transmission

47. Referring to pp. 4-5 and 9-10 of the Malefyt testimony, what is the Staff's present views as to the likelihood and/or wisdom of undergrounding some part or all of the transmission lines between the Plant and the Leeds substation?

48. What are the estimated costs for undergrounding all or the most sensitive portions of the connecting transmission lines, and how, if at all, were these taken into account in the Staff's Regional Site Analysis?

D. Nuclear Fuel Cost and Reliability (Becker Testimony)

49. Would Professer Becker please define the term "fundamentals" and identify when over the last 10 years fundamentals have pertained in the energy field?

50. Is it Professor Becker's view that "fundamentals" will with time defeat the oil cartels and result in reductions in oil costs? If he does not believe this, then what is his basis for the conclusion that uranium prices will sharply reduce from present levels?

51. Please indicate how much of the escalation in nuclear capital costs over the last 10 years (from $250/KW to $1500/KW) has been attributable to regulatory changes and new safety requirements? Provide an estimate of the future rate of increase due to such requirement, and fully explain the basis of this estimate.

52. Please indicate the industry projections for nuclear capital costs in the following years (i.e., projections for what costs would be 2 to 5 years from the date of prediction): (a) 1968; (b) 1970; (c) 1972; (d) 1975; (e) 1977. Indicate what the actual costs have been relative to these estimates, and explain the inaccuracy of the industry projections.

53. Please indicate how Dr. Becker has accounted for "opposition costs" -- i.e., the effect of nuclear opposition on the escalating costs of nuclear plants. Please provide a full explanation and quantify, if possible.

54. Please indicate whether Dr. Becker believes in the following (or any of them): (A) Santa Clause; (B) Edward Teller; (C) Norman Rasmussen; or (D) the Easter Bunny (a well-known breeder).

55. Would Dr. Becker please explain the problems of waste storage and disposal that have arisen at West Valley; evaluate how those problems were created; and identify the total costs that are likely to be incurred to solve those problems.

56. Would Dr. Becker please explain how the "potential problems of weapons proliferation via the nuclear fuel cycle . . . will prove manageable in the uranium-plutonium fuel cycle" (Testimony, p. 18). Provide the bases for this statement, indicating when Dr. Becker expects that U.S. Government policy will change and how he has made this estimate.

57. Referring to p. 64 of the Becker testimony, lines 7-9, if the risks are realized and diversion to unauthorized or terrorists forces occurs, who will care

particularly about the advantages for long-term energy supply? If possible, provide a cost-benefit analysis of this situation.

Please provide answers to the above questions on or before March 9, 1979, in accordance with the Joint Order of the ASLB and Judge Cohen, issued January 5, 1979.

Dated: February 23, 1979

Respectfully yours,

BUTZEL & KASS
Attorney for Greene County
et al.

By Albert Butzel
Albert Butzel

45 Rockefeller Plaza
New York, N.Y. 10020
(212) 765-1800

cc: Hearing Officers
Active Parties

RELATED CORRESPONDENCE

NRC [illegible]

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

NEW YORK STATE BOARD ON
ELECTRIC GENERATION SITING AND THE ENVIRONMENT

In the Matter of	:	
POWER AUTHORITY OF THE STATE OF NEW YORK	:	Docket No. 50-549
	:	Case No. 80006
(Greene County Nuclear Power Plant) (Greene County Nuclear Generating Facility)	:	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing document in the above-captioned proceeding have been served on the following by deposit in the United States Mail, first class or air mail, this 28th day of February 1979.

Hon. Edward P. Cohen
Presiding Examiner
Public Service Commission
Board on Electric Generation
Siting and the Environment
Empire State Plaza
Albany, New York 12223

Donald Carson
Associate Examiner
Department of Environmental
Conservation
50 Wolf Road
Albany, New York 12223

Andrew C. Goodhope, Esq.
Chairman, Atomic Safety and
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