Oct 28, 1980

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
DUKE POWER COMPANY	)	Docket Nos. STN 50-488
	)	50-489
	)	50-490
(Perkins Nuclear Station	)	
Units 1, 2 and 3)	)	

BRIEF IN SUPPORT OF EXCEPTIONS AND NOTICE OF APPEAL FROM PARTIAL INITIAL DECISION OF FEBRUARY 22, 1980

I. NATURE OF THE CASE

This is an appeal by intervenors Mary Apperson Davis and the Yadkin River Committee from a partial initial decision of February 22, 1980, by the Licensing Board which approved the alternate site analysis and found that there was no "obviously" superior site. This same Licensing Board had reopened the hearing process in June of 1978, on the grounds that the staff analysis was inadequate in the light of the requirements in the National Environmental Policy Act and decided cases and regulations requiring the NRC staff to make a thorough and evenhanded analysis of alternative sites. The record was reopened in June of 1978, and a hearing was held beginning on Monday, January 29, 1979, and concluding on Friday, February 2, 1979. During the time that the record was reopened, the applicant produced much of its own data in regard to its overall site selection process and this data was reviewed by the staff and was reviewed by two expert witnesses for the intervenors. At the hearing, the staff offered evidence which it had submitted in writing in the fall of 1978, and which had been objected to by the intervenors at that time. The intervenors offered Dr. Miguel Medina of Duke University, a Professor of Engineering Hydrology, and Dr. Allen Lipkin, a Professor of Chemistry at Winston-Salem State University. The applicant offered

no prefiled testimony but offered Mr. Blackmon of its Engineering Staff and Mr. Dail of its Engineering Staff to answer questions of the Board.

On Monday, January 29, 1979, the Licensing Board heard forty-four public witnesses speak in opposition to the Perkins Site on the Yadkin River. Eight persons spoke in favor of the Yadkin Site. On Monday afternoon, each of the parties made opening statements and then the staff added its five-witness panel and took the stand. Intervenors challeged this panel for its lack of objectivity, independence, vagueness, and superficiality. These objectives had been made in writing immediately after the evidence was mailed in the fall of 1978. The Board recessed the hearing before ruling on whether or not the panel evidence would be allowed into the record. On Tuesday morning, the Board received the evidence over the objection of the intervenors and the five person panel was extensively cross-examined for the entire day by the parties and the Board. Late Tuesday afternoon, through Dr. DeSylva asked the staff panel the following question:

> Q. Could you, tomorrow morning, provide us with a table of the things you did look at, the factors you considered in making this up?
>
> A. Yes.
>
> (Tr. p. 3249)

A few minutes later the Board thorough Dr. DeSylva again made the following request:

> Q. Dr. Gilbert and panel, in response to Dr. Jordan's question before, as far as supplying us with a set of guidelines you have gone with, it would be very helpful if you could give us — and we would like to incorporate in the record, because right now, except for this testimony, we would have something a little more quantitative. If you could

give us, perhaps, if you have with you, your individual ratings of these various candidate sites and the ratings you gave them, according to each type of criterian. Could you do that for us tonight? Give it to us tomorrow?

A. (Witness Gilbert) Each individual staff member?

Q. Pardon?

A. Each individual staff member?

Q. If you had it, it would be great.

A. (Witness McBrayer) Sir, I might suggest you essentially have mine in table 1. That is my rating.

Q. You see, we are looking for something from the whole panel who participated in the alternate site evaluation.

Mrs. Bowers, Panel Chairman: Your field notes. Are they accessible?

Witness Gough: Not all of them.

Mr. Barth: We understand what the Board wants, Mrs. Bowers, and we will do our best to comply with the Board's request, both as we did with Dr. Zittel to itemize the factors considered which are not specifically spelled out, and how they view this.

Mrs. Bowers; Fine.

Despite this repeated emphasisis by the Board on a detailed analysis by the staff, the staff panel did not have the requested information on the following Wednesday morning and through the Staff Counsel, Mr. Barth, stated that it was not able to do so for a factual and a legal reason. Counsel Barth stated, "The factual reason is that this is not what these people did in an alternate site study, they did not go out and construct a ranking of sites." In regard to his legal argument, Counsel Barth argued that a detailed analysis was not required by the hard look standard of the National Enviornmental Policy Act.

It is the position of the intervenors that this failure or refusal by the staff panel to comply with the request by the

Licensing Board crystalizes the purpose and strength of this Appeal. The reason for the reopened hearing was the inadequate site analysis by the staff. After a day of cross-examination the Board in an attempt to prop up the vague and subjective analysis presented by the staff panel, gave them an opportunity to focus their analysis in some logical form in order that the Board might have the benefit of such an analysis when examining the applicant's position and the evidence and the position of the intervenors. The staff evidently decided not to even attempt such an analysis and therefore admitted the weak character of its evidence. The Board went on for the following three days to hear evidence offered by the intervenors through two expert witnesses and then called witnesses for the applicant. The hearing was closed on Friday, Feburary 2, 1979. More than a year later, a long and quite unusual partial initial decision was rendered. The decision is unusual in that it is severely critical of the staff analysis but despite this criticism, it upholds the staff conclusions.

Intervenors filed one hundred and two exceptions which have been organized and grouped into twelve categories as follows:

1. THE LICENSING BOARD ERRED IN ITS PROCEDURAL RULINGS BEFORE THE HEARING AND AT THE BEGINNING OF THE HEARING WHICH UNDULY RESTRICTED PUBLIC AND INTERVENOR PARTICIPATION

(EXCEPTIONS NOS. 1 through 5)

The intervenors presented two excellent qualified witnesses on the crucial aspect of the water defect of the Perkins site. These witnesses were obtained despite the rush and haste which was imposed on intervenors by the scheduling of the hearings and failing to allow a short period of time to clear up the position of the State of North Carolina on cooling towers. The intervenors prior to the hearing in January, 1979, were faced, as they have been faced throughout these proceedings, withproblems of resources and time. As has already occurred in these proceedings the intervenors predicament got it no consideration from the Board. The failure of the Board to allow clarification of the North Carolina position on cooling towers led to numerous other errors which are set out in this Brief and lead to its acceptance of a hearsay letter which flawed much of the findings in its decision and which will be pointed out hereinafter.

The limitation of public participation to five minutes was in stark contrast to previous hearings in this matter which allowed public witnesses to set forth arguments and authorities which have proved helpful in these proceedings. The citizens of North Carolina have conducted themselves in an exemplary manner in all previous hearings and this new limitation placed by the Board for the January hearings was clearly unnecessary and inhibited appropriate public input.

2. LICENSING BOARD ERRED IN OVERRULING INTERVENORS OBJECTIONS AND IN ALLOWING STAFF EVIDENCE TO BE INTRODUCED WHICH WAS OBTAINED IN DISREGARD OF NEPA STANDARDS AS SHOWN IN EACH EXCEPTION

(EXCEPTIONS NOS. 6 through 28)

The intervenors filed written objection to the staff evidence several months before the hearing and followed up on these objections before the introduction of said evidence at the hearing. (Tr. p. 2995 through 3011). Intervenors pointed out that none of the witnesses had independent experience as a witness, author, teacher, writer or authority in regard to the question of alternate sites. (Tr. p. 2995 through 3011). The intervenors objected and made arguments almost identical to the objections and arguments of the Licensing Board to the superficial nature of this testimony on the first day of the hearing. (Tr. p. 3013). The intervenors argued that the evidence failed to show that the staff witnesses took a hard look at the alternative sites, failed to consider dollar costs on site suitability, relied upon the letter from Mr. Benton regarding cooling towers, and fail to visit all of the sites at Lake Norman. (Tr. p. 3013, 3014, 3015).

Intervenors further objected to the staff's attempt at hydrological analysis for the reason that it merely accepted applicants conclusions and showed no awareness of water problems so basic that the effect of the water problems on High Rock Lake and in regard to fish kills were set out fully and obviously in the final environmental impact statement. (Tr. p. 3015). Intervenors also pointed out that the staff evidence used only one-half or less of the necessary evaluation factors used by all other persons in the public literature a consideration of sites

and alternate sites. (Tr. p. 316). The intervenors referred to an EPA document which indicated a critical state of eutrophication on the Yadkin River and in High Rock Lake. This document was judicially recognized and listed High Rock Lake in the most critical state of eutrophication of all lakes in North Carolina. It specifically showed that Lake Norman and the Catawba Basin was in much better condition than High Rock. Intervenors objected to the fact that the staff analysis did not take this into account and these objections were overruled. (Tr. p. 3017). The intervenors objected further to the fact that the staff analysis did not consider the extensive water regulation on the Catawba River Basin and that this was an obvious difference with the Yadkin Basin which had almost no river regulation and which Perkins Site on the Yadkin would require the construction of an additiona reservoir known as the Carter Creek Reservoir. (Tr. p. 3017). As argued above, the staff relied upon a letter from a Mr. Benton and failed to consider the potential of lake cooling at Lake Norman in its analysis. (Tr. p. 3108). The Licensing Board never seemed to understand intervenors position that Duke Power Company had a vested interest in trying to keep the site of the Perkins Plant away from Lake Norman on account of its real estate investment and sales on that Lake. The Licensing Board did not seem to understand the difference between the utility holding land for utility purposes and the utility engaged in the active sale of lots for residential and other purposes. The applicant admitted that it was selling lots on Lake Norman through its subsiduary companies and this was argued by intervenors as one of the reasons the applicant in its screening process dropped all but one Lake Norman Site. The staff accepted

it and in fact the Licensing Board followed up on it as will be pointed out hereinafter. The intervenors objected strenuously to this failure of the staff evidence to take note of the interest which the applicant had in Lake Norman which it did not have at High Rock Lake and how this might effect its consideration of sites on Lake Norman. The failure of the staff to view with healthy and appropriate skepticism the position of the applicant on this matter was a further indication that the staff analysis simply accepted at face value everything in the applicant's site studies. (Tr. p. 3018 and 3019).

After the intervenors pointed out all of the above defects in the staff evidence, the Board below was appropriately concerned and called a recess until the following morning. On the following morning, they accepted the evidence over intervenors objections and allowed the staff to attempt to regroup its analysis. As pointed out in the introduction to this Brief, the staff spent all day on Tuesday trying to clean up its work but it was unable to satisfy the Board at that time and it never supplied an objective analysis of its own work. The staff work was simply a piggyback process. (Tr. p. 3019, 3048, 3054, 3061, 3063 through 3065, 3076, 3077, 3264 through 3267, 3270, and 3836).

3. THE LICENSING BOARD ERRED IN ITS FINDINGS IN REGARD TO THE APPLICANT'S SITING PLANS WHICH WERE PIGGYBACKED AS PART OF THE STAFF'S CASE.

(EXCEPTION NOS. 29 through 41)

The Licensing Board in this matter had a huge problem. The staff analysis simply did not comply with the standards of the National Environmental Policy Act. Rather than recess the hearings and require the staff to do a proper job, the Board attempted to do its work for them. In findings six through

twenty-one, the Board attempts to rebuild a non-existant staff analysis by talking about the applicant's siting method. These findings are certainly not supportable by the staff's case. They are not supported by the intervenors. They are simply the applicant's self-serving siting plan which have no support in the record at all. Later on, the Board called some of the applicant witnesses to the stand to attempt to shore up the staff's case. This attempt was incomplete and unsuccessful as will be pointed out later in this Brief. However, under these exceptions, the Licensing Board continued to make findings which were simply not supported.

In finding of fact number six, the Board shows that it is trapped by some of the applicant's logic. It appears to accept applicant's position that a lake site should be held in reserve on the question of lake cooling even though such a site would offer the potential of either lake cooling or cooling towers or perhaps both. As intervenors have pointed out above, applicant does not favor any more Lake Norman Sites. It is intervenors' position that Duke's real estate development is the reason for this desire on Duke's part to stay away from Lake Norman. It is for this reason that the intervenors argue that the confusion in finding of fact number six is an attempt to disregard a Lake Norman Site which is better than a Yadkin Site because it has the potential of two types of cooling systems. Therefore, the potential of two types of cooling systems is better and should receive a higher rating than a Yadkin Site which does not have that possibility.

In findings six through twenty-one, the Board repeats applicant's conclusions which are highly prejudicial on the question

of whether or not an adequate analysis was done by the staff. In finding number eight, the Board swallows applicant's argument that the 1978 study should help the alternate site consideration. It argues that Duke in January of 1978, assumed that Perkins would be built. This point ignores the very proceedings which have been taking place. In the Board's own order, it points out that in the environmental hearings in 1971, the Board questioned specifically on April 28, 1977, whether the record was adequate as to alternative sites. This statement at page one of the partial initial decision indicates that Duke was certainly aware in January of 1978 that the matter of alternate sites was an open question. To presume ignorance of this point defies common sense and everyday logic. In the Board's finding of facts number ten and fourteen, additional sites are dropped at Lake Norman for the simple reason that the Board accepted the applicant's position that only one site on a body of water should be kept in the analysis. There is no reason given for this except that it obviously helps the applicant in its attempt to play down the Lake Norman sites. (See Applicant's Phase 1 Siting Study at page 5 and 6, August 8, 1978 Response). (Phase 1 Siting Study pages 6 through 25).

Exception number thirty-five and thirty-seven which referred to findings by the Licensing Board number sixteen and seventeen (Applicant's August 8, 1978 Response page 2 and attachment to page 2, staff exhibit 10, and transcript page 3671) focus on just how the piggyback approach cannot comply with NEPA standards. The Board, having given up on the staff approach, asked the applicant how it could justify a rating of Perkins as higher than the Lake Norman sites in the light of upstream water control on the Catawba Site as pointed out by intervenors and intervenors

witnesses. The applicant referred to the Carter Creek Reservoir which is less than one percent of the storage water available in the Catawba Basin from Lake Norman northwestwardly to the mountains. There is never any improvement in the justification for Perkins in the light of the water regulation issue. Later on there is an attempt to talk about ratios of power production in river valleys which certainly have nothing to do with an environmental impact analysis.

Finding number eighteen is utterly unsupported. It is uncontested that the applicant could withdraw up to twenty-five percent of the water above the 1000 CFS stream flow. This means that when the stream flows are in the area of 1400 to 1500 CFS, the applicant is in a position to reduce the flow to the minimum level of 1000 CFS. The final environmental impact statement in section 5.2.3 indicates that a reduction in total stream flow will effect water quality. The final environmental impact statement further notes fish kills may occur. The references to percentage of average stream flow refuses to acknowledge the effect of water regulation on these percentages.

The Licensing Board acceptance of the ratio of consumptive water use in the various river basins are simply a meaningless ratio in the light of water regulation. Intervenors pointed out that Lake Norman had four times the volume of High Rock. (Tr. p. 3696). Intervenors also pointed out that the Catawba Basin had twenty times the amount of water reservoir control as the Yadkin Basin.

The Board's finding number twenty was not based on the evidence of good engineering judgment in that Dr. Medina testified that he had studied under the person who had designed an appropriate

model for such a study and that it could be completed in a few weeks. (Tr. p. 3701 through 3704). The failure of Duke to carry out these studies is again a result of the bias which Duke has on account of its recreational investment and development at Lake Norman as pointed out above. The Licensing Board in its finding number twenty-one attempts to use the failure in the State of North Carolina to declare a capacity use as somehow justifying the Duke rating systems failure to account for the impact of a nuclear plant on the Yadkin River water as compared to its impact on Lake Norman. All of these matters go to the question of water regulation which was pointed out by Dr. Medina and consistently ignored by the Licensing Board. The Board in this finding is attempting to replace staff analysis which did not occur. The problem with this procedure is that argument is no substitute for factual development and analysis. When the Board was faced with an inadequate staff analysis it simply attempted to use cross-examination of applicant's position to justify the ultimate question of the hearing. This boot strap approach can by no stretch of the imagination comply with the requirements of NEPA.

7. THE LICENSING BOARD ERRED IN FINDING AND UPHOLDING THE PORTION OF THE STAFF'S DISCUSSION OF APPLICANT SITING PLAN AND THAT THIS STAFF PERFORMANCE WAS EQUALLY FLAWED AS THE OTHER STAFF WORK AND AS NOTED BY THE LICENSING BOARD (EXCEPTION NOS. 42 through 55).

The Board findings in regard to the so-called staff analysis of the applicant siting plan which are set out in the findings 22 through 48 reveal just how really terrible the staff work turned out to be. The Board in its findings is simply describing that the staff did read the applicant's documents. That, however, is not the standard. The staff evidently thought it could read the documents and make a few comments and that would be the end of the matter. It is difficult to take seriously the Board's findings about some staff person reading someone else's documents. If this hearing had indeed been proper, then the findings would be about the documents of the staff first and then perhaps some reference to the applicant's documents. However, the Board was forced to piggy-back with the staff and of course, this led to its accepting the rating formulas which made no distinction in water defects between the Perkins and Lake Norman site. By going through this convoluted process of talking about how the staff must have read the documents, it is difficult not to be lulled into thinking that reading documents passes for analysis. The Board makes a great point in a few occasions where the staff expressed some doubt or disagreement with applicant.

Finally, when the Board discusses the conclusions of the staff beginning at Finding No. 31 and 32 and continuing to Finding No. 39, the Board is merely repeating mistakes. None of these Findings an conclusions by either the staff or the Board take into account the eutrophication at High Rock Lake in compared with Lake Norman, the potential growth and water uses in the future, the water regulation on the Catawba River Basin, and the size of Lake Norman. Finding of fact No. 32, 33, and 34 are similarly flawed in that neither the Board nor the staff uses a grading formula which shows that there is any difference between the Yadkin site and Lake Norman in regard to matters of water quantity and quality. The Board's approval of the staff evidence and analysis is not supported by the evidence as the staff admitted that the nutrient load of the water quality at High Rock Lake was poor and failed to take this into account of its analysis of the alternative sites (See transcript page 3122, 3123, and 3126 and 3149).

8. The Licensing Board erred in that its analysis of intervenor testimony ignores the basic issues of water quantity and quality in attempts to limit the obvious and substantial impact with intervenor's testimony. (Exception Nos. 56 through 62) In approaching the intervenor's testimony, the Board again mistakenly uses the hearsay letter of Mr. Benton to downplay possibility of once through cooling of Lake Norman. This letter from Mr. Benton was high prejudicial hearsay and its use in this portion of the findings as well as in other places, is inappropriate. The Board Finding No. 54 that the Catawba River would be less affected defies common sense and well as the

evidence. As previously noted, the water regulation and water volumes at Lake Norman and the Catawba River lead to the only and obvious conclusion that the water impact would be less on the larger body. Again, in Finding No. 54, the Board defies common sense and logic by appearing to argue that the critical state of the water quality and quantity in the Yadkin River is not a significant matter. Intervenors introduced and the Board took judicial notice of the United States Environmental Protection Agency Nature Eutrophication Survey report on High Rock Lake and other lakes in North Carolina. This report which was admitted into the record at transcript page 3340, stated as follows: "High Rock Lake ranked last in overall trophic quality when the sixteen North Carolina Lake sampled in 1973 were compared using a combination of six perimeters." For the Board to state as it does in Finding No. 54, that there is no evidence that the higher water quality in Lake Norman is an important consideration is for the Board to admit finding that the staff failed to do its job. Staff failed to account at all for water quality and quantity in a meaningful sense. For this reason the Board was left making such statements. The Board even goes on the argue the average historic flow of the Catawba is slightly less than the Yadkin as if the water regulation had nothing to do with the water capabilities of that basin.

In Finding No. 55 the Board appears to forget that water runs down hill and that the Perkins site is only a few miles upstream fro High Rock Lake. If anything, the location of the Plant upstream from High Rock will complicate the effect on water quality and quantity rather than make it less severe as

indicated by the Board's interpretation. The impact of the Perkins Plant will be felt by the Yadkin River flow and by the Lake. This again is a factor that is certainly important. The Board Findings in regard to intervencr's testimony show that the Board was disregarding intervenor's testimony despite its obvious relevance and despite the fact that the applicant put its witnesses back on the stand in attempt to deal with the significant issues raised by the intervenors.

9. THE LICENSING BOARD ERRED IN ITS EXAMINATION OF APPLICANT'S TESTIMONY IN THAT IT FAILED TO APPLY THE NEPA HARDLOOK STANDARDS CONSIDERING THIS TESTIMONY AND CONTINUED TO RELY UPON THE INADEQUATE STAFF ANALYSIS.

(EXCEPTION NOS. 63 through 69)

The Board analysis of an applicant's testimony is a repeat of its earlier walk-through of the applicant's documents and the staff reading and reaction to such documents in earlier findings. As the earlier findings reveal the findings are once again not supported by the evidence and that they ignore the water differences and still cling to the theory that one site is rated just a high as another on a pass-fail methodology. What this means is that if the Perkins site on the Yadkin River gets a passing grade then it gets the same A or excellent rating that is attached to the Lake Norman site and other water rich sites. In short, there is not distinction made between sites in water considerations once a basic threshold is passed. This methodology is in violation of the standards required by NEBA which are essentially based on common sense and logic.

There is nothing esoteric about the fact that Lake Norman is four time bigger than High Rock or that the Catawba River Basin has 20 times as much storage capacity for water as the Yadkin Basin. These are obvious differences which are uncontested in this case. In spite of these obvious differences the Board fails to take into account these differences in its approval of the applicant rating in its analysis of the applicant's testimony.

10. THE LICENSING BOARD ERRED IN ITS FINDING A CONCLUSION THAT THERE WERE NO SITES SUPERIOR TO THE PERKINS SITE AND IN FAILING TO FIND CONSISTANT WITH UNCONTRADICTED FACTS.

(EXCEPTION NOS. 69 through 96) 98, 100, 101, 102)

As pointed out above, the Board attempted to explain away the substantive evidence of the intervenor. The Board evidently decided to attempt to over come the inadequate staff analysis by doing its own analysis through cross-examination of applicant and intervenor witnesses. While the cross-examination produced arguments it simply did not produce information which changed the basic structure of the alternate considerations.

The Board findings and conclusions are simply in violation of the NEPA standard and not supported by the evidence which shows that the storage volume of High Rock Lake is 250,000 acre feet and Lake Norman is 1,093,600 acre feet. The EPA working paper study shows that according to Vollen Weder

analysis the phosphorous loading level is dangerous above 1.52 and High Rock Lake show 7.98 and further that High Rock Lake is listed with having the most problems with eutrophication in all of the sixteen lakes in North Carolina (Tr. p. 3340). Further, Dr. Lipkin testified that based upon his use of a Joplin Matrix which was developed by Mr. Joplin of Florida Power and Light Company and which was obtained from the files of Duke Power Company several of the other sites were obviously superior to the Perkins site. (Tr. p. 3513, 3527 and 3530). Dr. Lipkin further pointed out the Joplin Matrix which he used was conservative on the crucial water question and the use of these metric rates and the use of a true A through F approach to grading resulted in a figure of 168 for the Perkins site and 202 for Lake Norman E which according to Dr. Lipkin indicates the obvious superiority of the Lake Norman site. (Tr. p. 3645). Intervenors incorporate herein all of the previous arguments in support of these exceptions. The Board Chairman indicated a utility viewpoint of the alternate site process that perhaps was a clue to the ultimate findings in this matter. (Tr. p. 3257).

11. THE LICENSING BOARD ERRED IN ITS ORDER OF AUGUST 14, 1989, FAILING TO GRANT INTERVENTION TO DAVID SPRINGER AND FAILING TO REOPEN A RECORD OF MOTION OF THE INTERVENORS, DATED JUNE 6, 1980.

(EXCEPTION NO. 97)

The intervenors and with limited resources and time attempted to respond in a meaningful way in these proceedings. Before the hearings, the intervenors pointed out the inadequate hearsay letter which was being relied upon by the staff in regard to a purported position of North Carolina on cooling towers. When it was realized in the spring of 1980, that this information was used by the Board in its initial partial decision, Mr. Springer and the intervenors moved to reopen the record. Mr. Springer moved to intervene. The documents incor-

porated in Mr. Springer's motion shows that the state does not have a position and the cooling towers are a potential alternative. In the meantime, the applicant has now plans for starting construction of the Perkins site and in fact has laid off workers at the Cherokee Plant and these matters were brought out by the intervenor in motions filed in the summer of 1979. For these reasons, it was error for the Board not to reopen this case and clear up the record on a crucial point prior to this appeal. In previous portions of this brief, we have discussed the unfortunate results produced by the highly prejudicial hearsay letter of Mr. Benton.

12. THE LICENSING BOARD ERRED IN FAILING TO APPLY THE PROPER STANDARD OF PLAIN OR SIMPLE SUPERIORITY MANDATED BY NEPA ALTERNATIVE SITE CONSIDERATION.

(EXCEPTION NO. 99)

This hearing indicates the mischief which results from the obvious or substantial superiority standard adopted by the Board. All the evidence in this matter showed the fact that a Lake Norman Site and others are superior to the Perkins site. The obvious or substantal standard is a convenient device for this Board or any board to use in avoiding a hard decision. Fortunately, in this case, the building of the plant itself is perhaps moot and therefore, it should not be difficult for this board to give an opinion consistant with the dissenters in the Sterling Case and set this matter straight once and for all in the light of the facts of this case which so abundantly indicate what happens when the standard is too flexible.

III. CONCLUSION

In conclusion, intervenors would like to summarize its position:

1. The Staff and Board analysis clearly violates NEPA Regulations in its failure to distinquish between the water problems at the Perkins Site and the water abundance and lake cooling potential at Lake Norman.

2. The Staff and the Licensing Board clearly violated NEPA requirements in its failure to acknowledge the critical state

of the Yadkin water quality and particularly as compared to the much better condition of the Catawba Basin and Lake Norman water quality.

3. The Staff and the Trial Board violated NEPA requirements in failing to consider and find under the evidence that the twenty times greater water storage and regulation on the Catawba Valley makes it an obviously superior site to a Yadkin Site such as proposed by Perkins and the failure of the Staff and the Board to rate the sites in the light of this water regulation factor constitutes a gross defect which cannot be explained away.

4. The Staff analysis was obviously inadequate and yet the Board after finding that it was inadequate, contradicted itself and supported the same inadequate analysis in its own findings and substitutes argument for fact in violation of the alternate site analysis required by NEPA.

5. By all of the above actions, the Board clearly failed to take a hard look and ignored the uncontradicted of evidence of intervenors which revealed the fatal flaw in the Perkins Site as one of water inefficency and a critical level of water pollution which was not present at the Norman Site. Therefore, in accordance with the rule that alternate site analysis must be carried out in order to produce the best net environmental result, the Board's decision was not supported by the evidence in this record and must be reversed.

The development of environmental law over the past ten years has lead to serious misunderstandings with regard to what might be called the edges of environmental considerations and the centers of environmental consideration. One might say that the first few years the development of this area of the law saw an attempt by the environmentalist to use the sharp edges of an environmental set of facts to change results. In this Perkins hearing, the area under consideration has moved from the edges to the center.

The intervenors have not raised some esoteric point on the edges of the impact statement. From the beginning of this controversy the question of water quantity and quality has occupied the center of the debate. The applicant, Board and parties have always realized that the impact on the Yadkin River and High Rock Lake was going to be significant. The applicant and the staff argued that the impact would be reduced to acceptable levels by the construction of an additional reservoir. However, this reservoir would only be in effect approximately four percent of the time and the withdrawal of twenty-five percent of the river water during other times, was obviously a significant concern in terms of both the effect on water quality and quantity.

When one is faced with a question of whether an impact should be accepted or not, is obviously difficult to reach a factual or scientific answer. Obviously, the intervenors feel that the impact is too great and the staff and the applicant have taken the other position.

It is at this juncture that the alternate site analysis becomes so important. Without comparing the Yadkin Basin to another site, there is never any intellectually respectable conclusion to the debate. The question is whether or not the impact on the Yadkin River is worse in a significant way than it would be to some other potential site. The alternate site analysis was not put into the NEPA in order to keep lawyers busy. It certainly should not be considered to be "extremely fashionable" (Tr. p. 3257). The alternate site analysis allows a fair minded person to really understand what the parties are arguing about. The argument over the Yadkin Basin is best understood when the Catawba Basin is compared to the Yadkin Basin. When the comparison was done in this proceeding, it was immediately obvious to Dr. Medina, who is a Professor of Engineering Hydrology at Duke University, that a Lake Norman Site was obviously superior on account of the water issue. The same result was reached by Dr. Lipkin when he used a matrix which took into account the difference in water impact on the Yadkin and Catawba Basins.

The fact that the Board accepted the Duke Power Company rating of equal water impact on the Catawba and Yadkin Basin indicates just how far off the mark the Licensing Board in this proceeding strayed.

As a final conclusion to this Brief, intervenors would respectfully submit that the fundamental and ominous question which is prehaps most important in this appeal, is whether or not a Licensing Board can disregard substantial and uncontradicted evidence of a water defect and substitute extremely clever arguments in the place of the vacuum created by the failure of the staff analysis of alternate sites. There are no substitutes for careful, factual research and analysis. The Board's cross-examination and argument simply cannot be substituted for the missing factual development by the staff on the question of alternative sites which was recognized by the Board in its severe criticism of the staff work. Certainly, this appeal Board cannot condone and approve the failure by the staff to do its job. One the present state of the record, this matter must be reversed. Intervenors suggest that the matter should be terminated in that the applicant has no present plans for the initiation of construction. Therefore, the application should either be withdrawn or dismissed.

This the 28th day of October, 1980

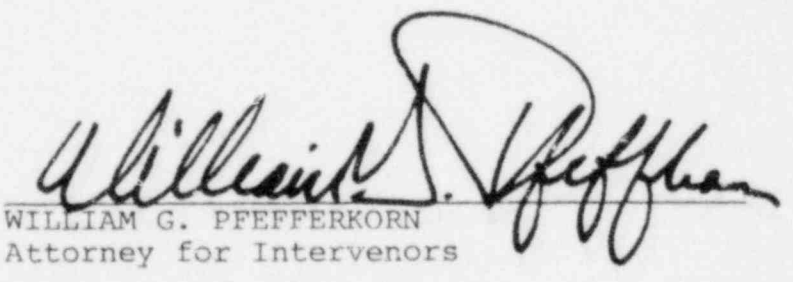

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TABLE OF AUTHORITY

National Environmental Policy Act
42 USC 4321, 4331, and 4332

CERTIFICATE OF SERVICE

I hereby certify that copies of INTERVENOR'S BRIEF in the above-captioned matter have been served on the following by deposit in the United States Mail this the 28th day of October, 1980.

Alan S. Rosenthal, Esq., Chairman
Atomic Safety and Licensing
Appeal Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dr. John H. Buck
Atomic Safety and Licensing
Appeal Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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