

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the Matter of
DUKE POWER COMPANY
(Perkins Nuclear Station,
Units 1, 2, and 3)

)
)
)
)
)

Docket Nos. STN 50-488
STN 50-489
STN 50-490

NRC STAFF RESPONSE IN OPPOSITION TO
NOTICE OF APPEAL AND BRIEF OF INTERVENORS

Charles A. Barth
Counsel for NRC Staff

Dated: January 12, 1981

8101150299

TABLE OF CONTENTS

	PAGE
I. <u>INTRODUCTION</u>	1
II. <u>BACKGROUND AND STATEMENT OF THE CASE</u>	2
III. <u>ISSUES PRESENTED</u>	3
IV. <u>ARGUMENT</u>	3
A. <u>The Appropriate Standard</u>	3
B. <u>The Record Supports the Boards' Obviously Superior Finding</u>	7
C. <u>The Boards' Decision is Supported by a Preponderance of Evidence</u>	20
V. <u>CONCLUSION.</u>	34

TABLE OF CITATIONS

	PAGE
<u>COURT CASES</u>	
<u>Cape Henry Bird Club v. Laird</u> , 359 F. Supp. 404 (1973)	5, 6
<u>Hodder v. NRC</u> Case No. 76-1709, Dec. 28, 1978 unreported	6
<u>Johnson v. Baker</u> (CA3, 1971) 445 F.3d 424	30
<u>Jones v. Priete</u> (CA Ohio, 1973) 489 F.2d 709	32
<u>McColloch Interstate Gas Corp. v. F.P.C.</u> (CA 10, 1976) 536 F.2d 910	30
<u>Milliken v. Meyer</u> 311 U.S. 457 (1941)	32
<u>Moran v. Ford Motor Co.</u> , 476 F.2d 289 (C.A. 5, 1973)	8
<u>New England Coalition on Nuclear Pollution v. NRC</u> 582 F.2d 78 (1978)	5
<u>Omaha Hardwood Lumber Co. v. Phipps Lumber Co.</u> (CA Ark. 1943)	32
<u>Shell Oil Co. v. Costle</u> (CA 5, 1979) 595 F.2d 224)	32
<u>U.S. Steel Corp. v. EPA</u> (CA 5 1979) 595 F.2d 207.	30
<u>Westwood Chemical, Inc. v. Owens-Corning Fiberglass Corp.</u> (CA 6, 1971) 445 F.2d 911.	30
<u>NRC CASES</u>	
<u>Boston Edison Company</u> (Pilgrim Nuclear Generating Station, Unit 2), ALAB-479, 7 NRC 774 (1978)	2, 4, 5
<u>Cleveland Electric Illuminating Co.</u> (Perry Nuclear Power Plant, Units 1 & 2), ALAB-443, 6 NRC 741 (1977)	7
<u>Commonwealth Edison Co.</u> (Zion Station, Units 2 and 2) ALAB-626, Oct. 2, 1980 Slip op. 5	32

TITLE OF CITATIONS (Continued)

<u>Duke Power Co. (Perkins Nuclear Station, Units 1, 2, and 3), PID, 8 NRC 470 (1980)</u>	
<u>Duke Power Company (Perkins Nuclear Station, Units 1, 2, and 3), ALAB-615, 12 NRC 350 (1980)</u>	3
<u>Duke Power Co. (Perkins Nuclear Station, Units 1, 2, and 3), ID Sites Alternative, 11 NRC 310 (1980)</u>	
<u>Florida Power and Light Co. (St. Lucie Nuclear Power Plant, Unit No. 2), ALAB-435, 6 NRC 571 (1977); ALAB-335, 3 NRC 830 (1976); and, LPB-77-27, 5 NRC 100 (1972)</u>	2, 23
<u>Illinois Power Company (Clinton Power Station, Units 1 and 2), ALAB-346, 4 NRC 27 (19)</u>	7
<u>Northern States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-233, 8 AEC 857 (1974)</u>	23
<u>Public Service and Gas Co. (Hope Creek Generating Stations, Units 2 and 2) ALAB-429, 6 NRC 229 (1977)</u>	19
<u>Public Service Co. of Indiana (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-461, 7 NRC 313 (1978)</u>	-
<u>Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-471, 7 NRC 477 (1978)</u>	2
<u>Public Service Co. of New Hampshire (Seabrook Station Units 2 and 2), ALAB-422, 6 NRC 33 (1977)</u>	19
<u>Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), CLI-77-8, 5 NRC 503 (1978)</u>	4, 5, 9
<u>Rochester Gas and Electric Corp. (Sterling Power Project Nuclear Unit 1), ALAB-502, 8 NRC 383 (1978)</u>	4, 9

TABLE OF CITATIONS (Continued)

	PAGE
<u>STATUTES</u>	
5 U.S.C. § 556(d) and § 706.	3, 19, 20, 22, 30
28 USC § 2105	30
42 U.S.C. § 4322(2) NEPA	20
<u>REGULATIONS</u>	
10 C.F.R. § 2.760(c)	3, 8, 20
10 C.F.R. § 2.762	30
<u>Other</u>	
Federal Rules of Civil Procedure, Rule 61	30

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the Matter of

DUKE POWER COMPANY
(Perkins Nuclear Station,
Units 1, 2, and 3)

}
Docket Nos. STN 50-488
STN 50-489
STN 50-490

NRC STAFF RESPONSE IN OPPOSITION TO
NOTICE OF APPEAL AND BRIEF OF INTERVENORS

I. INTRODUCTION

On February 22, 1980, the Atomic Safety and Licensing Board (ASLB) issued a partial initial decision (11 NRC 310 (1980)) regarding sites alternative to the proposed Perkins site (PIDSA). The ASLB concluded (11 NRC at 336) "On the basis of the record and for the reasons stated above, we find that there is no site obviously superior to the one proposed for Perkins on the Yadkin River."

A Notice of Appeal and Exceptions to the PIDSA was filed by the Intervenor in this construction permit proceeding. The Intervenor took 102 exceptions to the PIDSA. On October 28, 1980, the Intervenor filed their Brief in Support of Exceptions. The NRC Staff opposes the Intervenor's exceptions on appeal and urges this Appeal Board to affirm the Licensing Board's decision below.

II. BACKGROUND AND STATEMENT OF THE CASE

On October 27, 1978, the Licensing Board in the construction permit proceeding issued a partial initial decision (8 NRC 470) on all issues then outstanding except for sites alternative to the Perkins site and certain generic safety issues not germane to this appeal. During the course of the environmental hearings held in 1977, the Licensing Board questioned whether the record was adequate as to alternative sites in view of the Appeal Board's decision in St. Lucie.^{1/} At that time, the NRC Staff and the Applicant took the position that the record was adequate.

Subsequently the Appeal Board issued two opinions^{2/} which convinced the Staff that its alternative site analysis did not conform to the standards then set by the Appeal Board. Therefore, on June 15, 1980, citing Pilgrim and Seabrook, the Staff moved the Licensing Board to re-open the record to take additional evidence on alternative sites. On July 14, 1978, the Licensing Board granted the Staff motion.^{3/} Hearings on alternative sites commenced January 29, 1979 and were concluded February 2, 1979. The Intervenor were represented at the evidentiary hearings by their counsel, William Pfefferkorn and David Springer. They cross examined both Applicant and Staff witnesses and also presented two witnesses to support their views. The Licensing

1/ Florida Power and Light Co. (St. Lucie Nuclear Power Plant, Unit No. 2), ALAB-435, 6 NRC 541 (1977); ALAB-335, 3 NRC 830 (1976); LBP-77-27, 5 NRC 103 (1977).

2/ Public Service of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-471, 7 NRC 477 (1978), and Boston Edison Company (Pilgrim Nuclear Generating Station, Unit 2), ALAB-479, 7 NRC 774 (1978).

3/ 8 NRC at 483, 11 NRC at 311 line 28, and Staff filing dated June 15, 1978.

Board issued its partial initial decision on alternative sites on February 22, 1980 (11 NRC 310) and found that there is no site obviously superior to the Perkins site.^{4/} The Intervenor's have filed 102 exceptions to the decision and filed their brief in support.^{5/}

Intervenor's indicate that they have grouped their exceptions in twelve categories for purposes of briefing. (Brief, p. 4.) However, only nine specific subject areas are identified. Categories 4-6 are missing in the brief and category eight is not titled. A review of Intervenor's Brief indicates that two major issues are presented on appeal.

III. ISSUES PRESENTED

The fundamental issues raised by Intervenor's appeal are: (1) whether "obviously superior" is the correct legal standard to be applied to the alternative site matter and (2) whether the PIDSA is supported by reliable, probative and substantial evidence as required by 5 USC § 556(d) and 10 C.F.R. § 2.760(c) of the Commission's regulations.

IV. ARGUMENT

A. The Appropriate Standard is "Obviously Superior"

Intervenor's argue in their exceptions and brief^{6/} that the wrong NEPA standard was applied when the ASLB used a standard that required an

^{4/} Duke Power Company (Perkins Nuclear Station, Units 1, 2, and 3), ALAB-615, 12 NRC 350, September 29, 1980.

^{5/} Exceptions 69-96 and 98-102 concern whether the Board erred in applying the obviously superior standard. Exceptions 1-5 and 97 concern procedural rulings of the Licensing Board. Exceptions 6-68 complain of the Board's weighing of the evidence.

^{6/} Id.

alternative site to be "obviously superior" in order to deem the Perkins site on the Yadkin River inadequate. Intervenor's Exception 99 states that NEPA requires a standard of "plain" or "simple" superiority. No legal justification is provided for this theory in Intervenor's brief, nor are "plain" and/or "simple" defined and there are no evidentiary arguments cited in support. Intervenor's argue that "the obvious or substantial standard is a convenient device for this Board or any board to use in avoiding a hard decision." Brief at 20. Putting aside the substantive defects of Intervenor's proposed findings, exceptions, and brief in this regard, it is the Staff's view that the ASLB applied the correct legal standard (PDSA paragraph 70) when it found that there was no site obviously superior to the Perkins site.

The ASLB followed Commission guidance set forth in Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), CLI-77-8, 5 NRC 503 (1978) when it applied the "obviously superior" standard to its alternative site determination. This Commission guidance has often been followed by the Appeal Board as well. Rochester Gas and Electric Corporation (Sterling Power Project Nuclear Unit 1),^{7/} ALAB-502, 8 NRC 383, 393 (1978); Boston Edison Company (Pilgrim Nuclear Generating Station Unit 2), ALAB-479, 7 NRC

^{7/} Especially see the discussion by the Appeal Board in Sterling 8 NRC at 397 and 394. The NEPA requirement is whether there is an environmentally preferable alternative to the proposed action, not whether among non-preferable alternatives which is first or secondly or thirdly non-preferable. Ranking of non-preferable alternatives (sites) is not required by NEPA.

774 (1978). The use of this standard has already been upheld by the courts. New England Coalition on Nuclear Pollution v. NRC, 507 F.2d 70, 91 (1st Cir. 1978). Staff counsel made these arguments at hearing Tr. p. 2266 and at length on 3/1.

The Commission pointed out in Seabrook, supra, that such a standard is necessary because of the inherent imprecision of the cost-benefit analysis and the probability that more adverse information has been developed respecting the closely examined proposed site than of any alternatives. Id. at 528. Much of the cost-benefit is, according to the Commission, difficult of articulation, much less of quantification. Id. at 529. Therefore, any evaluation of a given site must have a wide margin of uncertainty. Id. at 528. The Court of Appeals for the First Circuit adopted the Commission's reasoning when it stated:

"Given the necessary imprecision of the cost-benefit analyses involved and the fact that the proposed site will inevitably have been subjected to far closer scrutiny than any alternative site, we cannot say that it is unreasonable to insist on a high degree of assurance that the extreme action of denying an application is appropriate." New England Coalition, supra, at 95.

The Court in the Seabrook decision concluded that NEPA does not require that a plant be built on the single best site for environmental purposes.

It stated:

All that NEPA requires is that alternative sites be considered and that the effects on the environment of building the plant at the alternative sites be carefully studied and factored into the ultimate decision. Seabrook Id.

NEPA requires that the agency take a hard look at alternatives. Pilgrim, supra, 7 NRC at 779; Cape Henry Bird Club v. Laird, 359 F.Supp 404 ,481 (WD.

VA 1973). Cape Henry requires a good faith consideration of alternatives based upon such information as is needed to determine feasibility. Cape Henry does not require extensive collections of data beyond that necessary for an informed judgment. Here the Staff reviewed and analyzed the Applicant's search methodology and made its own analysis using Applicant produced data and independently researched data, as well as site visits by a team of persons qualified in their respective professional disciplines which enable them to assess the effects upon the environment of a Perkins type facility and then made its conclusions regarding alternative sites.^{8/}

The Staff and Applicant have carefully analyzed the alternative sites in this case. The ASLB heard testimony from all parties and determined that there is no site which is obviously superior to the proposed site. Intervenor presented no legal or factual argument as to why the well-established obviously superior standard should be abolished, and gave no reasons why in this case the Board should not follow previously established Commission precedent and cited no authority for their assertion of legal error. Therefore, there can be no error ascribed to this Board concerning the

^{8/} See also, Rodgers Environmental Law (1977), pages 19 and 716. See also Hodder v. NRC, CADC No. 76-1709 Dec. 28, 1978 slip op where the court approved an alternative site analysis by NRC which is almost a carbon copy of the Staff's analysis in Perkins. The citation for and relevance upon this case was given to the ASLB and parties by Staff counsel at the hearing, Tr. p. 3965 and following.

standard it used to do an alternative site evaluation and the PIDSA should be affirmed.^{8/}

B. The Record Supports The Board's Obviously Superior Finding

Intervenors' central attack on appeal relates to the evidence put into the record by the Staff. They allege that the Board erred in receiving Staff testimony as expert, (Brief, p. 6) that the Staff failed to obtain sufficient information to evaluate alternate sites, (Id.) and that the Staff failed to give weight to the proper considerations in doing its evaluation (Id.).

9/ Eighty-nine (89) exceptions were not briefed and 13 exceptions were briefed. These exceptions which are briefed are numbers 1, 2, 4, 6, 7, 8, 12, 55, 56, 69, 70, 97, and 99. Reading the intervenor's proposed findings, exceptions, and brief in para materia, the substantive issues raised by intervenors are the obviously superior standard and whether the decision is supported by reliable and substantiated evidence as required by the Administrative Procedure Act. Exceptions which are not briefed are waived. Public Service Company of Indiana, Inc. (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-461, 7 NRC 313, 315 (1978) and cases cited therein at n.6. Reply briefs are to be directed to matters briefed by the appellant rather than to the exceptions. Illinois Power Co. (Clinton Power Station, Units 1 and 2), ALAB-340, 4 NRC 27, 52 at n. 39. Consequently, the Staff does not address herein those non-briefed exceptions. The requirement of briefing exceptions was specifically called to the attention of the parties in ALAB-615, September 29, 1980, when the Appeal Board affirmed the Licensing Board's denial of Mr. Springer's untimely intervention petition. There (ALAB-615) the Appeal Board stated: "Thus, if briefed [emphasis supplied] by the Intervenors, these matters will receive the same attention on appellate review as would have been accorded them had Mr. Springer demonstrated an entitlement to intervention." citing Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 and 2), ALAB-443, 6 NRC 741, 744 (1977). Not having been briefed, the Staff will not substantively respond to exceptions 3, 5, 9, 10, 11, 13-54, 57-68, 71-96, 98, 100, 101, 102.

The ASLR found staff witnesses qualified.^{10/} Intervenor's brief does not address the Licensing Board's findings. A witness may qualify as an expert based upon his knowledge, skill, experience, training and education.^{11/} Whether the witness is qualified to testify as an expert is normally within the discretion of the finder of fact. (Id.) If the witness possesses extraordinary training to aid laymen in determining facts the evidence should be admitted. (Id.) The Licensing Board evaluated the qualifications of the staff witnesses^{12/} and concluded they were qualified to give the testimony they proffered. The Staff panel was composed of experts in areas of specialty routinely used for alternate site reviews. Dr. Stephen B. Gough had a Ph.D in botany with a minor in oceanography and limnology. (Professional Qualifications of Dr. Stephen B. Gough following Tr. 3049.) Dr. James F. McBrayer was an ecologist with research experience in terrestrial ecosystems and land use. (Professional Qualifications of Dr. McBrayer following Tr. 3049.) Other members of the Staff panel came from Oak Ridge National Laboratory with the exception of the environmental project manager who is a member of NRC's headquarters staff. These experts possess qualifications routinely accepted by NRC Licensing Boards in proceedings such as these. Intervenors also complain that because these experts were employed

^{10/} Transcript p. 3049.

^{11/} Moran v. Ford Motor Co., 476 F2d 289 at 291 (C.A. 5, 1973) and cases cited therein.

^{12/} Transcript pp. 3046-48.

by the NRC or the Oak Ridge Laboratory, they are incapable of independent judgment. (Tr. 3012.) This, of course, is a frivolous objection since this allegation, if true, would result in disqualification of every staff witness ever tendered resulting in a total inability of the staff to perform its independent review functions. Consequently, the only issue remaining regarding the admissibility of Staff's testimony is whether the testimony was relevant to alternative sites.

The Staff testimony describes applicant's site search procedure and compares a number of environmental parameters with Perkins, among them being water availability to cool the condensers, land use, terrestrial ecology, potential aquatic impacts, etc. (Staff testimony, pages 9-24 Following Transcript page 303-49.) Intervenors' exceptions 6 through 26 all go to admission of staff testimony and those exceptions do not show 1) that Staff witnesses were not qualified to give the testimony they gave and 2) that the Staff testimony was unrelated to the issue of alternative sites. Exceptions 6 through 26 (Group 2) should be denied.

Intervenors argue that the Staff evaluation was inadequate because it failed to be a detailed de novo examination. (Brief, p. 8.) As discussed above, the Commission's prior decisions have recognized that the Staff review necessarily is of information provided to it by applicants. (Seabrook, supra, 5 NRC 523-24; See also, Rochester Gas and Electric Corp. (Sterling Unit 1), ALAB-502, 8 NRC 383, 390 (1978).) The Staff, in this case, used the information submitted by the Applicant to determine the candidate sites

to be examined (Tr. 3792-94). However, the Staff used independent criteria to evaluate these sites. (Tr. 3092, 3099, and 3271 et. seq.)

Subsequent to the ASLB reopening the record the Staff sought additional alternate site information from Applicant. The Applicant provided the Staff with information on its site search process and the results thereof. This information was subsequently entered into evidence (Staff exhibit 10, Tr. 3060 and 3078). In addition, the Staff held several meetings with Applicant personnel. The Staff analyzed the Applicant's methodology, verified essential factual information submitted by the Applicant, utilized its own expertise and sources of information, visited prospective sites and performed ab initio an alternative site evaluation in conformity with Appeal Board and Commission direction. This appraisal is set forth in Staff testimony which was received in evidence. (Tr. 3049).

Information provided by Applicant and the Staff's subsequent independent evaluation was based on reconnaissance-level information. Reconnaissance-level information consists of information that is available from open literature, published or unpublished reports, existing records, authoritative sources, or that can be obtained by brief field surveys performed by recognized experts. It does not include information that can only be obtained by detailed onsite monitoring programs or studies such as available for Perkins. (Staff testimony p. 2 and 3).

The alternative site review requires a critical analysis of an applicant's search methodology to determine whether such methodology is likely to disclose

an obviously superior site, if, indeed such a site does exist; verification of the factual content of an applicant's search, such as street files, data, population data, transmission line distances, transmission corridors, etc.; a thoughtful reconnaissance level assessment of the best sites disclosed by applicant's search plus such sites that the Staff believe were improperly excluded by an applicant; and a comparison of each site in the final slate of possible sites with the Ferkins site, recognizing that the information available on the Ferkins site vastly exceeds information available on possible alternative sites.

Two applicant documents, both dated 1978, identified 100 preliminary, potential locations for nuclear and fossil site plant alternatives in the 2600-4000 MWe range. (11 NRC at 313-14) These potential, preliminary locations were identified through a coarse screening of the Region of Interest to identify potential areas and candidate areas, followed by an intermediate screening of candidate areas to identify site areas and potential sites.

The applicant's intermediate screening of candidate areas resulted in the identification of areas and potential sites. The process was largely one of evaluation through large scale mapping to produce potential site locations and visual inspection. This process resulted in the exclusion of 62 sites in the original bank of 100 and in the selection of the 38 sites evaluated and presented in the Phase I study. (11 NRC at 314-15)

The Staff examined the above exclusion criteria for these 62 sites and agreed with them except in two respects. The Phase I study had as its

objective the identification of thermal energy sites (both nuclear and/or fossil) rather than just nuclear sites. Such an approach could have eliminated a potentially licenseable nuclear site when the procedure eliminated a site as unsuitable for a fossil plant. (11 NRC at 320.) The applicant did not, however, use the unsuitability of any given site for fossil as a means of eliminating any of the 62 sites as a nuclear site. (Id.) The applicant had also excluded several sites in the 100 originally in the site bank primarily because of the distance from the Duke service area thus requiring longer transmission lines and disturbance of greater land area. If the number of sites examined had been small or if such a relatively large region of interest had not been examined, the Staff would have examined the excluded sites. However, at the most, this was only a minor denigration in the Applicant's methodology. (Id.) Finally, the Staff examined the geographical distribution of the 38 remaining potential sites. (11 NRC at 320-21.) This examination led the Staff to the conclusion that these 38 sites were distributed throughout the region of interest in such a manner that sites for further consideration remained in each of the candidate areas initially established in the early phase of the studies. Therefore, these 38 sites were representative of all the resource areas in the region of interest. (Id.)

The Staff then focused on the data presented in the Phase I siting study dealing with the remaining 38 potential sites (Staff Testimony following Tr. 3049).

The Staff recognized that the Phase I Siting Study was designed to produce a preliminary decision document for use by the Applicant for choosing

future sites, both fossil and nuclear after having used the Cherokee and Perkins sites. However, the Staff found that Applicant's analysis was susceptible to consideration of the 4000 MWe nuclear/cooling tower option, as well as other options. (11 NRC at p. 321.) Accordingly, the final screening criteria used to analyze the remaining 38 sites became the subject of Staff's review of the 4000 MWe nuclear/cooling tower option. (Staff Testimony following Tr. 3049, Phase I Siting Study, Table 3; Staff Exhibit 10).

In its examination of the fine screening criteria used by the Applicant to reduce the 38 sites to a manageable number the Staff concluded that two main defects existed in Applicant's rating process. First, there was no rating factor given for land use. (11 NRC at 321.) The Staff believed that land use characteristics were extremely important in evaluating environmental impacts. Second, the Staff attached no weight to the land holdings of the Applicant as a valid concern for rejection or acceptance of any particular site. It was, however, the Staff opinion that inclusion of land use characteristics, coupled with a brief reconnaissance level information environmental analysis based on land use, would only have the effect of eliminating some sites that were in fact retained. Thus, the lack of such data could only have left a larger bank of sites available for Staff examination than otherwise might have occurred and the Staff concludes that the lack of land use data was not a defect in Applicant's methodology which could have resulted in elimination of a site which was "obviously superior" to the Perkins site. With the above caveats, the Staff agreed that the remaining rating factors were reasonable. (Staff Testimony following Tr. 3049, at pp. 6-7).

Intervenors argue that the Staff analysis is inadequate since the Staff only visited one site located on a body of water. (Brief, p. 10.) The Staff visited the best site located on a body of water, Lake Norman "E". (See Staff Exhibit 10 and Tr. 3106.) If that site is not "obviously superior" to the Perkins site, it follows that site visits to less desirable sites on bodies of water would be unnecessary.

The Staff's review indicated that the applicant's screening process had not eliminated an "obviously superior" site for purposes of rating the alternative sites selected. Of the sites chosen for more detailed evaluation, the staff visited each site and made a complete reconnaissance. (11 NRC at 323, Tr. 3050-51, 3069-70, and 3240-42.) Independent sources of information were evaluated by the Staff to check the accuracy of the applicant's information. Computer data concerning land use in the Southeastern United States was checked. (Tr. 3056.) The State of North Carolina was asked for information. (Tr. 3056-57.) Maps and aerial photographs were reviewed. (Tr. 3057.) The United States Geological Survey (USGS) data on streamflow was consulted. (Tr. 3099-3100.) Intervenors' witnesses agreed that these were proper sources of information. (Tr. 3614-15, 3623, 3631-33, 3635-36.)

The final sites selected by the Staff for alternative site comparisons were: 1) Fishing Creek Reservoir, 2) Lake Norman "E", 3) Wateree, 4) Clinchfield, 5) Broad, 6) Middleton Shoals, 7) Hartwell-LaFrance, 8) Lower Hartwell, 9) Tuckertown, 10) Perkins.

Only one site had a superior site-factor rating compared to the Perkins site. The Fishing Creek Reservoir site is abandoned farmland with early second growth (old-field) forest on it. A substantial portion had been

cleared, but the ultimate disposition of the land was not evident. The method of clearing was consistent with site preparation for a pine plantation. The area population density is nearly twice that of the Perkins site but few potentially affected residences were observed. (Staff Testimony following Tr. 3049, at pp. 8-9).

In conclusion, ten sites including Perkins were compared by the Staff for potential location of a 4000-MWe nuclear power plant. At the reconnaissance level of information upon which the comparison was based, there were obvious differences in characteristics relating to terrestrial ecology and land use among sites, but no alternative site was judged by the Staff to be obviously superior to the Perkins site with respect to these factors.

All of the sites examined, with the possible exception of the Broad site, were found by the Staff to be reasonable and potentially licenseable to support a 4000-MWe nuclear station with cooling towers. Differences between all the sites were subtle and gradations between them were minor. (Staff Testimony at pp. 24-25).

The Board and parties inquired as to various aspects of the Staff's review. In response thereto the Staff stated that it had relied upon information other than that furnished by Applicant (Tr. 3056-57, 3083, 3089, 3185); that it had verified Applicant's information and found such to be both accurate and consistent with pertinent regulatory guides (Tr. 3058, 3079-80, 3083-86, 3080, 3103, 3185, 3286-87, 3299, 3792); that it had conducted an independent analysis of the final alternate sites (Tr. 3070, 3078, 3103, 3286-87, 3291-92, 3299, 3792); that the instant testimony was in compliance with current Commission alternate site guidance (Tr. 3087-88,

3232); that it relied upon reconnaissance level information (Tr. 3092, 3134); that siting is not a precise science, rather judgment must be reasonably applied and recognition must be extended to the fact that criteria vary in importance from one service area to another. (Tr. 3090-01, 3143-45).

The Staff witnesses testified that they concentrated first upon environmental costs, not monetary costs of construction and followed the guidance of NUREG 0099, Regulatory Guide 4.2, Revision 2, Preparation of Environmental Reports for Nuclear Power Stations, July 1976 (Section 9), General Site Suitability Criteria for Nuclear Power Stations Regulatory Guide 4.7, Revision 1, November 1975, and Commission decisions (Tr. p. 3185 and 6).

The Staff testified to its methodology in reducing the sites under consideration from 38 to 10 (Tr. 3081-82, 3238-40, 3246); it stated that it took all the factors advanced by Applicant into consideration, as well as some additional factors (Tr. 3248); it listed the factors it took into consideration in its analysis of the final alternate sites (Tr. 3257-58, 3271-77u); it explained why it did not use the matrix approach (Tr. 3164-78, 3186, 3192, 3291-94, 3810,14). The Staff noted that Perkins was subjected to closer scrutiny because information beyond the reconnaissance level was available (Tr. 3082-83, 3127).

Intervenors' category 10 (Brief, p. 17) is a summary of exceptions 69-96, 98, and 100-102. Essentially, Intervenors argue that the Licensing Board erred in its evaluation of the testimony of Intervenors' witnesses, Dr. Lipkin concerning the obviously superior standard.

The Intervenors presented two witnesses, Dr. Medina and Dr. Lipkin, to establish their direct case, neither of which challenged a factual matter

presented by either the Staff or applicant. Dr. Frank A. Medina, Ph.D., a professor of civil engineering (Medina Testimony folio 3420) who had had no experience in the siting of electric generating facilities or other industrial facilities (Tr. 3390 and 3430); no background in aquatic biology (Tr. 3389); except for materials provided by his counsel, he had read no literature in the field of industrial or power production siting (Tr. 3390); he had reviewed no NRC siting analysis except for that in the Perkins FERC (Tr. 3394); he had made no independent calculations (Tr. 3432); he had not assessed the effect of heat discharge of a 3600 MWe power station upon the receiving waters (Tr. 3432); he had not visited any of the alternative sites prior to preparing and submitting his testimony (Tr. 3464). While Dr. Medina testified that the Lake Norman and Wateree sites, fed by the Catawba River, were clearly better than Perkins (Medina 2) he testified that he did not know the size of the Catawba or Yadkin drainage basins (Tr. 3683); he had not analyzed the drainage basin population (Tr. 3683); he did not know the amount of water presently consumed upstream of High Rock Lake Dam, the Cowans Ford Dam or even Lake Wateree (Tr. 3479, 3684); he did not know the amounts of water projected to be consumed downstream of Lakes Norman and Wateree (Tr. 3479-80); and that such factors were important to his analysis (Tr. 3684). He further testified that he was unaware of the F.P.C. (now FERC) controls at the Badin works which control the Yadkin flow downstream of High Rock Lake (Tr. 3720-3722). The Intervenor had previously unsuccessfully proposed Lake Norman as a better site than Perkins site before various North Carolina state agencies and not prevailed.

Dr. Medina found his basic support in "North Carolina Water Resources Framework Study" 1977 to which he referred in his written direct testimony.

Dr. Medina testified, under cross examination, that the Framework Study projects a larger wet industry area (water intensive) downstream of Perkins than downstream of the Lake Norman sites (Tr. 3480-84, 3683-91). Dr. Medina, also under cross examination, testified that the Framework Study did not identify the Perkins site as being water quality limited (Tr. 3687). Dr. Medina's testimony was restricted to water availability and did not purport to address land use, population, transportation, aesthetics, transmission corridors or other matters relating to the siting of an electric generating station. Siting cannot be dependent upon one single parameter but is the result of comparing a number of environmental parameters such as the Staff did. Dr. Medina testified that he found no factual errors in the Applicants or Staff's direct testimony (Tr. 3429) although he did reach different conclusions. Note that appeal is only for errors of fact or law and although Intervenors' counsel alleged many errors, his witness testified that there are no errors of fact.

Dr. Alan H. Lipkin teaches chemistry at a college in Winston Salem, North Carolina. Early in January 1979 (Tr. 3433), several weeks before the hearing, Dr. Lipkin acquired an article titled "Plant Site Evaluation Using Numbered Ratings" by David Joplin published in Power Engineering, March 1974, which included a matrix table. Dr. Lipkin, without having seen any of the proposed alternative sites (Tr. 3514), proceeded to evaluate such parameters as proximity to load center, land use, soil and foundation condition, terrestrial impacts, water quality impacts, aquatic impacts, noise impacts,

air quality impacts, population density, etc. (See Lipkin testimony following Tr. 3436.) Dr. Lipkin was unable to identify any documents used by him in preparing his testimony (except for the Joplin paper) Tr. 3506-3512, 3591. Major parts of his testimony were not written by him (Tr. 3591). Major changes in facts and conclusions were made by him under cross examination Tr. 3528, 3593, 3594, 3596, 3631, 3550. His source for his assertions concerning Applicant's land holdings is what his attorney told him (Tr. 3595). He was unaware of the difference in heat discharged from cooling towers vs. once-through condenser cooling (Tr. 3597). He asserted without basis that a nuclear site must have an exclusion area of one mile in radius (Tr. 3603). At Tr. 3617 Dr. Lipkin testified he did not know what a discharge structure looked like, what were the size and dynamics of the discharge pipes (Tr. 3618) or what benthos is (Tr. 3618) yet Dr. Lipkin's direct testimony assesses the "aquatic biological impact" (Lipkin Table) at eight sites he had not seen. Dr. Lipkin testified he did not make any calculations or analysis which would demonstrate that Lake Norman could accept additional electric generating facilities (Tr. 3531). Dr. Lipkin did not know the purpose of the Applicant's Phase 1 Study (Tr. 3634).

In Public Service Company of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-422, 6 NRC 33 (July 26, 1977) the Atomic Safety and Licensing Appeal Board directed that Licensing Boards articulate their evaluations of conflicting evidence where such conflicts could lead to different conclusions. See also Public Service Electric and Gas Company, et al. (Hope Creek Generating Station, Units 1 and 2), ALAB-429, 6 NRC 229 at 237 (August 24, 1977). Here we have different conclusions between the Intervenors and the

Staff, but we do not have differences of fact. . . . Medina found no factual errors in Applicant's or Staff's direct case, nor did the Intervenor. The North Carolina Water Resources Framework Study, Raleigh 1977, the basic document upon which Dr. Medina relied, does not support his thesis that the Yadkin is now a water short river basin and would be more so if Perkins were operating. The Framework Study and the N.C. Environmental Management Commission (State exhibit 2) make it clear that the State projects adequate water in the Yadkin River basin until 2020 with Perkins in operation. The Staff also noted that sites Lake Norman and Wateree, posited by Dr. Medina to be better to Perkins were so posited upon only one parameter, amount of water in stream flow, with no consideration given to the effect of a 3800 MWe nuclear power plant upon the waters receiving the heat and chemical discharge or to other parameters such as transmission line corridors, land use, population, aesthetics, etc. The ultimate conclusion of the Licensing Board, that there is no site obviously superior to the Perkins site is supported by reliable and substantial evidence, unimpeached by the intervenor.

C. The Board's Decision is Supported by a Preponderance of the Evidence

The second issue raised by Intervenor's exceptions and brief on appeal is whether the PIDSA is supported by reliable, probative and substantial evidence as required by 5 USC § 556(d). Inherent in a discussion of the issue are the repeated allegations by Intervenor of defects in the Staff's analysis and, of course, paragraph 48 of the PIDSA which the Staff believes to be without foundation or merit. It was necessary for the Staff to ad-

dress some of Intervenor's arguments in this regard in the foregoing discussion of the "obviously superior" standard. However, the remainder of Intervenor's objections do seem more appropriately treated as issues regarding evidentiary weight.

42 USC § 4322(2), the implementing section of NEPA sets forth what each agency's environmental duties are. What is important here is that the NEPA duty devolves upon the NRC as a federal agency, not upon the Staff, not upon NRR, not upon the ASLB or ASLAB or the Commissioners - but by statute upon the NRC. Thus, for the Intervenor to prevail, they must show that the NRC action considering alternative sites is inadequate. NEPA does not mandate who in any particular agency will perform environmental assessments - only that the agency shall. 10 C.F.R. § 2.760 provides that the initial decision will constitute final NRC action (unless reversed or modified). Thus the ASLB's PIDSA is the NRC's action, subject to reversal or modification by the Appeal Board or the Commission itself. Here, any shortcomings, if any did exist, in the Staff's analysis were cured by the licensing board making its own analysis based upon Staff, Applicant and Intervenor evidence. See PIDSA paragraphs 69 and 70. Intervenor asserts that the ASLB did the Staff's analysis for it and that this is not proper. 5 USC § 556(d) provides that an order by an agency shall be based on the whole record and supported by reliable, probative and substantial evidence. Here the ASLB representing the NRC did just that (PIDSA § 69 and 70) and considering all the evidence in this record concluded that there was no site obviously superior to the Perkins site. Except as it may be modified, reversed or set aside, the PIDSA is the NRC action required by 42 USC § 4322(2) and the agency order

described in 5 USC 555(d). It was proper for the ASLB to consider the entire record and to make a decision called for by weighing all of the evidence in the entire record. Intervenor's Category I addresses exceptions 1 through 5. Exceptions 1, 2 and 3 deal generally with the question of the procedural rulings of the Licensing Board governing the preparation of the parties' respective cases on the alternative site review.^{13/} Intervenor's supply no citation to the record nor citation of law to support their position. All the brief states in regard to exception 1 regarding time for discovery is that the Intervenor's were rushed by the Licensing Board (Intervenor's Brief, p. 5.) On July 14, 1978, the ASLB reopened this record on alternative sites; the hearings began January 29, 1979, following discovery. Six and one-half months was available to the Intervenor's to prepare. No record evidence to support any hardship which they incurred as a result of the Board's schedule is cited.

Exception 2 is that the ASLB erred in not deferring the hearing until the position of North Carolina on water use could be clarified (Intervenor's Brief, p. 5, lines 10-21). The State of North Carolina by its assistant

^{13/} Exception 4 alleges that the ASLB erred "in its order of December 18 [sic] which set a five minute limit for..." limited appearance statements. The ASLB order, dated December 15, 1978, contains no such time limitation. In any event, such a limitation if made is within the discretion and authority of the Board, 10 CFR § 2.715 (a) and 10 CFR Part 2 Appendix A III (b). Intervenor's cite no authority for the proposition that they have standing to represent the general public (limited appearers) nor do they argue that their interests as a party were injured. Further, Intervenor's cite no instances of any person being so limited. Intervenor's make no argument in law or fact that a 5 minute limitation would constitute reversible error. This exception is without merit.

attorney general, William A. Raley appeared at the hearing and publicly stated the state's position.^{14/} The exception is without merit and should be denied.

Exceptions 3 and 5 are not briefed in any specific manner and have apparently been dropped by Intervenor.

The Staff notes that exceptions 1, 2, and 3 were not a part of Intervenor's proposed findings. In fact, some 68 exceptions were not in the Intervenor's proposed findings but are raised here for the first time on appeal. Some 34 exceptions arguably may be found in the Intervenor's proposed findings. They are exceptions 23, 35, 37, 38, 40, 50, 55, 61, 62, and 69-96. It is the staff's view that only exceptions 69 and 70 were both briefed and in Intervenor's proposed findings. The Appeal Board is not required to review exceptions made by a party who has failed to file proposed findings on the issues with respect to which the exceptions are taken.^{15/}

Intervenor's "Category II" addresses exceptions six through 28 and generally attacks the Staff's alternative site analysis. Those criticisms were addressed earlier including Intervenor's criticisms of the qualifications of the Staff witnesses. However, Intervenor's exceptions also take issue with the Licensing Board's findings on water matters. Intervenor's

^{14/} See Transcript pages 2956-2957; page 8 of ASLB Order dated August 14, 1980; and pages 4-6 of staff's September 27, 1980 response to the Appeal Board opposing David Springer's appeal of denial of intervention status.

^{15/} Florida Power & Light Co. (St. Lucie Nuclear Power Plant, Unit 2), ALAB-289, 2 NRC 3, 4 at n.2 (1975); Northern States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 & 2), ALAB-233, 8 AEC 857, 964 (1974).

Category 3 includes a criticism of findings on stream flow and consumptive water use. (Brief, p.11.)

From an aquatic ecological standpoint, the Perkins site has been shown to be an acceptable location for the facility since no significant impacts are predicted to occur at that site. (Tr. 3345 and 3330). It is possible that location of the plant at one of the alternative sites would result in even less of an impact than that which is predicted for Perkins. It is, however, the Staff view that such lesser impact would not be of such major proportions as to make that site clearly preferable to the Perkins site.

A major point of inquiry by the Licensing Board was directed to the Staff's consideration of water quantity as well as water quality. With respect to water quantity the Staff explained that its major concern was whether there was an adequate supply of makeup water for the proposed station and that once that had been established, the site became essentially equal to other sites with adequate water supplies (Tr. 3111, 3119, 3136-37). The Staff stated that all the alternate sites under final consideration have adequate water supplies with the possible exception of the Board site (Tr. 3141). Further, to do a detailed water analysis of all potentially alternative sites is neither practical nor required. (Tr. 3765-67). The Staff stated that of importance to its consideration of water availability was the size of Lake Norman and for this reason it rated Lake Norman over Perkins for water availability purposes (Tr. 3348, 3362) in spite of the fact that the Catawba River, which feeds Lake Norman, has a smaller average stream flow than does the Yadkin River which feeds High Rock Lake. The Staff indicated that water is simply one phase of the entire environmental alternate site analysis and that the Lake Norman sites, the best of which is Lake

Norman "E", were downgraded not based on water, because water is adequate, but based on other factors. (Tr. 3765-67; see also Staff Testimony).

The Board pursued the FES statement (FES Sec. 5.2.1.3) to the effect that future growth in the Yadkin basin may lead to serious shortages (Tr. 3739, 3767-78, 3770-71, 3773). The Staff stated that the statement was purely hypothetical and could apply to any flowing water body in the world, for "if future water needs grow significantly, critical water shortages could develop." (Tr. 3773-77) The Staff stressed that in "terms of significance, this is not a great problem." The Staff maintained the statement was a qualified one which said "could" not "will" develop (Tr. 3369); that the statement was made in 1975 to flag a concern that had been raised by the State and which was being pursued by the State (Tr. 3284-85 3769, 3773, 3776); that the State subsequently determined that potential use of Yadkin would not be significantly impacted by the operation of Perkins.^{16/} The Staff, making reference to existing and planned facilities, maintained that future water demands on the Catawba River system were similar to the Yadkin (Tr. 3778). The Staff stated that it was cognizant of Applicant's treatment of future water use (Tr. 3094-96) and indeed explained to the Board how such was taken into consideration (Tr. 3212-14); that while it did not perform an actual analysis of future water use, it subjectively considered the above future water use information (Tr. 3141, 3285).

^{16/} See the North Carolina Environmental Commission findings (State Exhibit 2 admitted at Tr. 1456); the North Carolina Utilities Commission findings, incorporating the Environmental Commission's findings (State Exhibit 1 admitted at Tr. 1455); the North Carolina Framework Study discussed herein.

The Licensing Board would have preferred that the Staff do additional analysis with regard to future water use. (11 NRC 328-329). However, the Board also indicated that it was concerned with a low flow rates that occurred only 8/10 of 1% of the time. (11 NRC 318.) Intervenors in their Category 3 (brief, p. 11) argue without record reference that these findings on consumptive water use are meaningless in light of water regulation. However, no elaboration is made. With respect to water quantity, the Staff stated that it had made use of the United States Geological Survey *USGS) STORET data base which contains water quantity and streamflow information for streams in the Piedmont Carolinas (Tr. 3099-3100) and that it subjectively considered future water quality and its impact on ecosystems (Tr. 3131-32). The Staff affirmed that water quality at Perkins was a major consideration (Tr. 3129); that water quality was a factor in contrasting Perkins with Lake Norman because water quality determined the important matters of diversity and density of aquatic biota (Tr. 3129); and that there are no significant impacts at the Perkins site or in High Rock Lake in terms of aquatic ecology (Tr. 3181, 3189-91, 3215).

Intervenors' argument that there is no basis for the Licensing Board's water findings is without merit. As the above discussion demonstrates, the record demonstrates the factual situation with regard to water as it is. Speculation about undefined future usage which is not consistent with information available to the pertinent state and federal agencies with water usage jurisdiction should not be indulged.

The Board also inquired as to the consideration given to upstream controls on the Catawba and Yadkin Rivers. The Staff acknowledged that the Catawba was regulated (Tr. 3110); however, the Staff noted that Carter Creek will have the effect of similarly regulating the Yadkin during low flow periods (Tr. 3224-25, 3797).

Intervenors' Categories 7 and 8 criticizes the Staff review because it relied extensively on the literature available concerning water matters. (Brief, pp. 10-14.) The Staff disagrees with paragraph 48 of the PIDSA which alleges "serious shortcomings in the staff's analysis of alternative sites....". However, since the ASLB did find that there was no site obviously superior to the Perkins site (PIDSA paragraph 70) the Staff was in a dammum abseque injuria situation, i.e., it did not agree with ASLB's conclusion in paragraph 48 but the staff was not ultimately harmed, it could not allege prejudicial error, i.e., the staff position that there is no site obviously superior to the Perkins site was adopted by the ASLB. PIDSA paragraphs 40-47 set forth ASLB questions regarding Staff testimony. Some comment by the Staff is appropriate. Paragraph 42 PIDSA, questions how water quality was used in staff analysis. The Staff testified unequivocally that aquatic impacts of Perkins were insignificant.^{17/} Since Perkins would not significantly degrade water quality in the Yadkin River, water quality at other sites with a nuclear power station, at best, could only be equal to, or worse than the Perkins site.

^{17/} Transcript p. 3189, Transcript pp. 3330, 3331, 3674, and 3777 lines 15, 3216 line 12.

Intervenors quarrel with the evidentiary findings concerning fish kills if Perkins is located on the Yadkin and questions whether this was considered. (Brief, p. 11.) As stated above, the NRC Staff witnesses testified that the effects of Perkins on the Yadkin River would be insignificant. This is an adequate answer by itself. Specifically, this ASLB found previously that the frequency and severity of fish kills on the Yadkin River to be small, Perkins PID October 27, 1978, NRC 470 at 491, paragraphs 78 and 79.

Intervenors' exception 55 excepts to the Licensing Board's finding in paragraph 48 because the Board finds fault with the Staff's analysis. Paragraph 46 PIDSA questions the Staff's alterante site analysis because of how it rated water availability. It is difficult to understand why there is a question. The staff used water quantity as a "go" or "no go" factor. If there was enough water available to cool the condensers at all sites, then all sites would be rated equal in regard to water availability. (Tr. 3111, 3129). In paragraph 47 PIDSA the ASLB expresses concern with a proposed 880 cfs drawdown limitation of flow of the Yadkin River. This has no application to this proceeding - see PIDSA paragraph 63, the drawdown limit is 1000 cfs. The Board also expresses the view "if the river flow is only marginally adequate, than an alternate [sic] site on a river with much larger flow might well be 'obviously superior'." However, the flow of the Yadkin River is greater than the Catawba and has been determined to be adequate for the Perkins facility, See PIDSA paragraph 18 and record cites therein [3725 should be 3735].

The Board's comment that the Staff should have given more consideration to future water also is ill founded. (1) The alternative sites analysis is based upon reconnaissance level information and (2) the record already has evidence that considering economic, social and public convenience the Perkins site was the most appropriate (paragraphs 4-7 state exhibit 1 page C, Transcript p. 1455, and see also pages 4, 5, and 6 Staff appellate brief in opposition to David Springer filed September 24, 1980).

In spite of the foregoing comments, and also the Staff's belief that Board finding 48 is in error, a different result would not be obtained if the error were corrected and, therefore, Intervenors' exception 55 should be denied.

Intervenors complain that the Licensing Board gave inadequate consideration to eutrophication at High Rock Lake. (Brief, p. 15, Category 8) Reference was made to an EPA study of High Rock Lake and the fact that it ranked below Lake Norman in this regard. The Staff acknowledged that High Rock Lake was more eutrophic than Lake Norman (Tr. 3330), but stated that such was not a primary consideration because the FES established that there would be no significant impacts on eutrophication resulting from the operation of Perkins. (Tr. 3330-31).^{18/} The EPA paper, No. 381, was extensively discussed in prior hearing sessions (Tr. p. 1208) where Applicant's aquatic biologist testified that the operation of Perkins would have no substantial adverse effect upon High Rock Lake. The Licensing Board concurred in its October 27, 1978 PID (8 NRC at 491 and 492).

^{18/} Intervenors asserted that phosphorous loading was a prime cause of eutrophication and the phosphorous discharged from Perkins would contribute to this condition. (Tr. 3331) The Staff, referring to FES Table 3.6, demonstrated the phosphorous would not be discharged from Perkins once operation commenced. (Tr. 3372).

The Staff also testified that EPA paper 381 itself recognizes that High Rock Lake has a short retention time (i.e., a high flushing rate) and that the model relied upon in the study may not reflect truly the situation that occurs at the Lake. (Tr. 3333, 3335-37).

In response to the Board's questioning concerning why the Staff did not include an EPA report in its review of eutrophication in light of the Board's earlier finding in the October 1978 PID that Perkins would have an impact on the Yadkin during periods of low flows (Tr. 3224-26, 3675), the Staff pointed out that the impact would not be significant due to downstream control of water releases and the doubling of average flow just below the Perkins' discharge. (Tr. 3774-75, 3777.)

Intervenors argue with paragraphs 6-21 of the PID. (Brief, p.8 Category 3.) Those paragraphs are not findings or conclusions of the ASLB. For the intervenors to succeed here with these exceptions they must point out (1) an error of fact by the ASBL in its recitation, without editorialization, of the record and (2) the intervenors must show that the fact error in the ASLB's summary was prejudicial and reversible error.^{19/} The Board's statements in question are correct summaries of the transcript and evidence set forth therein - without evaluation or editorialization. Intervenors may not

^{19/} See Rule 61 Federal Rules of Civil Procedures, 28 USC § 2105 and 5 USC § 706 all of which provide for reversal only for prejudicial error, i.e., error which substantially affects the rights of the parties. This rule applies to administrative actions. See U.S. Steel Corp. v. EPA (CA5 1979) 595 F.2d 207 and McColloch Interstate Gas Corp. v. F.P.C.I., (CA 10 1976) 536 F.2d 910. See also Westwood Chemical, Inc. v. Owens-Corning Fiberglas Corp. (CA 6, 1971) 445 F.2d 911 and Johnson v. Baker (CA 3, 1971) 445 F.2d 424 which require that the appellant must prove the prejudicial error.

like the PIDSA paragraphs 29 through 41 but neither their exceptions nor their brief point out one single factual error by the ASLB in those referenced paragraphs. Intervenors seem to indicate that those paragraphs are ASLB conclusions or findings of fact - a simple reading of the PIDSA shows otherwise.

Intervenors' Group VIII consists of exceptions 55 through 62. Intervenors assert that the Licensing Board should not have relied upon the letter from Mr. L. Page Benton to determine that the state of North Carolina will license once-through cooling on a lake fed by a navigable stream (Catawba River). Prior to the hearing the intervenors filed a document with the ASLB dated December 22, 1978 which challenged the Page Benton letter and raised as an issue once through cooling at Lake Norman. The Licensing Board questioned the position of North Carolina on this matter at the evidentiary hearings in April 1977^{20/} and their conclusion in the PIDSA comports with the evidence. The Intervenors' Brief provides no support for allegations that paragraph 53 of the PIDSA is factually or legally in error.

Group XI in the intervenors' brief is one paragraph upon exception 97 (a matter not in intervenors proposed findings). That exception alleges error in that the ASLB's order of August 14, 1980 denying intervention status to David Springer. The entire briefing of this exception follows.

"Mr. Springer moved to intervene. The documents incorporated in Mr. Springer's motion shows [sic] that the state does not have a position and the cooling towers are a potential alternative", Intervenor Brief pp. 19-20.

^{20/} Transcript p. 1439 et seq., see also page 8 of ASLB order dated August 16, 1980 regarding David Springer.

The Appeal Board in ALAB-615, September 29, 1980, affirmed the ASLB's denial of intervention to Mr. Springer and that ruling is dispositive of that issue. (See Commonwealth Edison Co. (Zion Station, Units 1 and 2) ALAB-626, October 2, 1980 slip op. and citations therein. See also Jones v. Priebe (CA Ohio, 1973) 489 F.2d 709 and Shell Oil Co. v. Costle (CA 5, 1979) 595 F.2d 224 which hold that agency action may not be reversed if supported by substantial evidence in the record.)

Five of intervenors' exceptions allege that it was error for the ASLB to adopt findings proposed by the intervenors. These exceptions are:

Exception 35	proposed finding 3, page 2	PIDSA paragraph 15
Exception 37	proposed finding 21, page 18 lines 9-13	PIDSA paragraph 17
Exception 87	proposed finding 18	PIDSA paragraph 50
Exception 89	proposed finding 20	PIDSA paragraph 51
Exception 90	proposed finding 20	PIDSA paragraph 52

Intervenors cannot complain of errors they induced the Licensing Board to make if, indeed, it was error.^{21/} Therefore exceptions 35, 37, 87, 89 and 90 should be denied.

Twenty Eight exceptions (29-46, 48-54, 59, 65, and 68) are to the ASLB recitation in the PIDSA of what occurred historically at the hearing. The staff has reviewed the record for each alleged error and it is our opinion that these exceptions are without foundation or merit. In those PIDSA paragraphs to which intervenors seek exception, the ASLB did correctly summarize and recite, without opinion or editorializing, the factual content of the record. A few deserve further comment.

^{21/} Milliken v. Meyer, 511 US 457 (1961) and especially Omaha Hardwood Lumber Co. v. J. H. Phipps Lumber Co. (C.A.A. h. 1943) 135 F.2d 3 which held that an appellant could not complain when the court adopted his proposed Findings.

Exception 38 states: "the [ASLB] erred in finding number 18 in particular its finding that if the 1000 CFS stream flows are exceeded 97 percent of the time and 1,100 CFS stream flows are exceeded 96.7 percent of the time....". Donald Blackmon of Duke Power Company testified as to these figures on transcript page 3735. There is no contrary testimony at all in the record and no impeaching cross-examination upon these figures. Mr. Blackmon's testimony and those figures stand uncontradicted. And, PIDSA paragraph is not a ASLB finding, rather it is a correct factual recitation of the record. Exception 38 was not briefed, nor was it in the proposed findings.

Exception 59 states: "the Licensing Board erred in finding [54] that the flow of the Yadkin River is more than the Catawba River...." Donald Blackmon testified to these facts for the applicant.^{22/} Roy Robertson testified for the staff that the average flow of the Yadkin River is greater than the flow-through in Lake Norman (the Catawba River)^{23/} and the staff's prefiled testimony which was accepted as evidence, also shows the average Yadkin flow exceeds the average Catawba River flow (staff testimony page 20 following Transcript p. 3049. The testimony of Mr. Blackmon, Mr. Robertson and the NRC staff witnesses is uncontradicted in the record. The Intervenor's Brief makes no effort to marshal the evidence to show that these facts are in error.

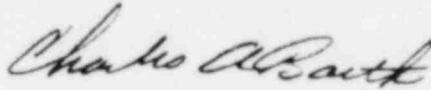
^{22/} Transcript p. 3736 lines 15 and 16.

^{23/} Transcript page 3361 and Transcript page 3362.

CONCLUSION

In view of all the foregoing the staff concludes that the exceptions of the Intervenors should be denied and the Partial Initial Decision Alternative Sites dated February 22, 1980 11 NRC 310 (1980) should be affirmed.

Respectfully submitted



Charles A. Barth
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 12th day of January, 1981.

William L. Porter, Esq.
Associate General Counsel
Duke Power Company
422 South Church Street
Charlotte, North Carolina 28242

Mrs. Mary Davis
Route 4, Box 261
Mocksville, North Carolina 27028

William G. Pfefferkorn, Esq.
P. O. Box 43
Winston-Salem, North Carolina 27102

Quinten Lawson, Esq.
Federal Energy Regulatory Commission
Room F611
885 North Capitol, N.E.
Washington, D.C. 20426

Atomic Safety and Licensing
Board Panel*
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Atomic Safety and Licensing
Appeal Board*
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Docketing and Service Section*
Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Charles A. Burt