

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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USNRC

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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BRANCH

In the Matter of )  
 )  
HOUSTON LIGHTING & POWER COMPANY, ) Docket Nos. 50-498 OL  
 ET AL. ) 50-499 OL  
 )  
(South Texas Project, Units 1 )  
 and 2) )

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APPLICANTS' REPLY TO PROPOSED FINDINGS OF FACT  
AND  
CONCLUSIONS OF LAW SUBMITTED BY THE OTHER PARTIES  
PHASE II

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THE CITY OF SAN ANTONIO, TEXAS,  
acting by and through the City  
Public Service Board of the City  
of San Antonio, CENTRAL POWER  
AND LIGHT COMPANY, and CITY OF  
AUSTIN, TEXAS

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APPLICANTS' REPLY TO PROPOSED FINDINGS OF FACT  
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PHASE II

In reply to the proposed findings of fact and conclusions of law submitted by CCANP and the NRC Staff, Applicants propose that, in addition to the findings and conclusions proposed by Applicants on September 30, 1985, the Board also adopt the following findings to address the additional arguments and differing positions presented by CCANP and the NRC Staff. 1/

Board's Evaluation of Submittals by the Parties

RI. General Matters

RI.1. Proposed findings of fact and conclusions of law were submitted by Applicants, CCANP (CCANP FOF) and the NRC Staff (Staff FOF) on September 30, November 7, 2/ and November 19, 1985 respectively and reply findings were submitted by Applicants on

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1/ This additional filing by Applicants is in the form of a supplement to the proposed findings of fact submitted by Applicants on September 30, 1985. Accordingly, all references within this filing to other paragraphs or findings of this proposed decision refer to the equivalent portion of the September 30 proposed opinion or proposed findings, respectively, or if preceded by the letter "R" to the equivalent portion of this reply.

2/ Our Order dated October 30, 1985 granted CCANP an extension until November 5, to file its proposed findings. CCANP served a preliminary version of its proposed findings on Applicants and the Staff on November 5 and 6, respectively. CCANP served the final version on November 7, 1985. Letter to the Members of the Board from Lanny Sinkin dated November 7, 1985.



November 27. The Board has carefully reviewed the proposed findings of each of the parties, and our review of those filings is reflected herein. There are few significant differences between the positions urged by the Staff and Applicants. While our decision does address those matters, it primarily focuses on the differences between the positions urged by CCANP, on the one hand, and the Staff and the Applicants, on the other. Any proposed findings not specifically addressed herein are rejected as unnecessary to this decision or not supported by the record. 3/

RI.2. Although CCANP's proposed findings addressed many of the issues in the proceeding, in some respects they were less useful to us than they might have been if they had not ignored significant portions of the record. In particular, the CCANP proposed findings largely ignore the testimony given by a number of witnesses, including testimony directly on topics addressed in the CCANP filing. Testimony ignored by CCANP includes that of Staff witnesses R. Taylor, G. Constable, E. Johnson, R. Heishman, C. Johnson, D. Carpenter, D. Garrison and J. Tapia, and Applicants' witnesses M. Wisenburg, T. Jordan, A.

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3/ At CCANP FOF, ¶ III.205 there is a discussion of the documents attached as exhibits to CCANP Motion to Reopen the Phase II Record: II dated October 16, 1985. By Memorandum and Order dated November 14, 1985, the Board granted in part CCANP's Motion and directed that a hearing be conducted on December 5-6, 1985 to consider the CCANP proposed exhibits. Proposed findings on the proposed exhibits 1-3 will be submitted after the conclusion of that hearing. CCANP's reliance on its exhibit 4 to its October 16, 1985 Motion is improper and misplaced.

Lopez, W. Ferris and R. Frazar. Although Dr. S. Bernsen and Mr. F. Lopez testified at length about the Quadrex findings, CCANP does not address the substance of their testimony, and instead argues briefly and without any citation to the record that their testimony should be ignored. CCANP FOF, ¶¶ II.81, III.217-18. Finally, we note that CCANP did not address issues B/D-1 or the Staff's updating of its views on Applicants' current competence in view of the performance of HL&P, Bechtel and Ebasco since Phase I. CCANP's failure to address significant portions of the record detracted significantly from the usefulness of its filing.

RI.3. Another shortcoming of the CCANP proposed findings is its failure to cite appropriate record support. Long sections of the filing containing numerous assertions of fact are without any citation to the record. 4/ Where record citations are provided they are frequently inadequate to support the proposed finding. 5/ Similarly, CCANP cites inaccurately

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4/ Eq. CCANP FOF, ¶¶ II.11, 17, 43-69; III.76-85, 156.

5/ Space does not permit listing a significant portion of the inadequate citations. The following is a small sample: CCANP FOF, ¶ II.9 says Quadrex informed HL&P of an ALARA "breakdown". Mr. Stanley testified that Quadrex did not consider it a breakdown. Tr. 13102-03 (Stanley), ¶ RII.7, infra. CCANP FOF, ¶ II.19 says "B&R adopted a policy of using preliminary data up until fuel loading, rather than take the time to verify the preliminary work." (Id., emphasis added). The record shows that B&R, in essence, verified its preliminary calculations. Bernsen/Lopez, ff. Tr. 13441, at 85-86; Tr. 12739-40 (Sumpter). CCANP FOF, ¶ III.18 says documents necessary to initiate the design process were missing. Mr. Stanley testified that "some front end documents were just being prepared." He viewed this as a timeliness issue and not as a QA concern (Tr. 13082-84 (Stanley)). CCANP FOF, ¶ II.16 says many HVAC  
(footnote continued)

numerous alleged NRC requirements, particularly in its references to 10 CFR Part 50, Appendix B. See §§ RII.69, 71, infra. We have previously warned the parties to this proceeding that we expect them to be careful in the preparation of pleadings, to assure their accuracy. Memorandum and Order (CCANP Motions II and III to Reopen Record), LBP-85-45 (November 14, 1985) slip op. at 16. CCANP's proposed findings fall short of this standard. Nevertheless, the Board has carefully considered the proposed findings filed by all parties.

RI.4. In its proposed findings CCANP has included a section entitled Credibility of Applicants' Phase II Testimony (CCANP FOF, §§ II.41-42, III.174-207), which contains a series of arguments based on alleged inconsistencies in the evidence on various matters. CCANP argues that if a conspiracy existed within Applicants' management to keep the substance of the Quadrex Report and information about the removal and replacement of B&R away from the NRC Staff and this Board, indicia thereof would have been seen during the Phase II proceedings. CCANP FOF, §§ II.41-42. It then asks us to find as such indicia that the Applicants' management made material false statements, omitted material information, and made knowingly misleading statements in their Phase II prefiled testimony and that they "demonstrated an intentional lack of truthfulness and candor in responding to

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(footnote continued from previous page)

systems were already installed when the Quadrex Report was received. The record provides no support for this statement. Cf. CCANP Exh. 108, (February 20, 1981 meeting), at 3; Tr. 14736-37 (Robertson); See also App. Exh. 74.

questions from the Staff, the parties and this Board." Id. CCANP specifically cites testimony of Mr. D.D. Jordan (Id., at ¶¶ III.177, 191-93), Mr. J. Goldberg (Id., at ¶¶ III.178-82, 194-207) and Dr. J. Sumpter (Id. at ¶¶ III.183-90). We have carefully reviewed each of CCANP's citations, and, as discussed herein, find that Applicants' witnesses have been truthful and candid both in their prefiled testimony and in answers to questions at the hearing. We find no support in that testimony for CCANP's accusations of a "conspiracy." Although CCANP chose to organize its proposed findings to make a separate issue of the credibility of certain testimony and witnesses, we have not chosen to organize our opinion in that way. Since the credibility of allegedly conflicting testimony is an element of deciding the substantive issues, we have addressed CCANP's contentions in the context of the substantive issues to which they relate. This organization puts the significance of the alleged inconsistencies in their proper perspective.

RII. Contention 9

A. HL&P's Handling and Review of the Quadrex Report

RII.1. CCANP's arguments with respect to Contention 9 may be divided into two general themes: (1) its allegations regarding HL&P's handling and review of the Quadrex Report and (2) its arguments regarding the reportability of various Quadrex findings and of the Report as a whole. In this subsection RII.A we address CCANP's arguments regarding HL&P's handling and review

of the Quadrex Report and Quadrex findings. The application of 10 C.F.R. § 50.55(e) to the Quadrex findings and Report are addressed in subsection RII.B, infra.

RII.2. CCANP argues: (1) that HL&P had "overwhelming evidence" of B&R's inability to engineer the Project prior to its receipt of the Quadrex Report but deliberately conspired to keep such information and the Report itself from the NRC (CCANP FOF, ¶¶ II.8-15, 53-54, 91-92, III.15-25, 149, 202); (2) that HL&P conspired to minimize the number of findings identified as reportable (Id. at ¶¶ II.22-23, 58-59, 62-66, 70-78, III.100-50, 155-56, 202); and (3) that the conspiracy continued after May 8, 1981 through, among other things, efforts to avoid references to the Report in Section 50.55(e) reports and IRC minutes, and limited briefings of, or collusion with, NRC officials (Id. at ¶¶ II.24, 60, III.91-97, 151-54, 203).

RII.3. As described in more detail in the following findings, we find no evidence of any such conspiracy on the part of HL&P (or NRC) officials. On the contrary, we believe that HL&P reasonably chose to await receipt of the Quadrex Report before initiating its reportability review, that the review was conducted in a manner which would (and did) provide a prompt and accurate assessment of the reportability of the Quadrex Report and findings, and that there is no evidence of any conspiracy to withhold reportable information either prior to or after May 8, 1981.

RII.4. CCANP argues first that, prior to receipt of the Report, HL&P had extensive knowledge, arising out of Quadrex's review, of B&R's failings in the engineering of the Project, that such information should have been reported to the NRC, and that HL&P deliberately chose not to do so. CCANP FOF, ¶¶ II.8-15, 54, 60, 91-92, III.15-24, 149. According to CCANP, Mr. Goldberg "avoided initiating any reportability reviews" prior to receipt of the final Report fearing NRC intervention. Id. at ¶ II.54. See also, Id. at ¶ II.58.

RII.5. As we have already indicated (Finding VIII.1, supra), litigation of the reportability of the Quadrex Report was limited to the 26 specific Quadrex findings, and the Report as a whole. With minor exceptions, CCANP makes no effort in its proposed findings to link any of the information allegedly available to HL&P prior to receipt of the Report to any of the Quadrex findings in issue. Furthermore, there is no evidence that Mr. Goldberg manipulated the timing of HL&P's reportability review. To the contrary, Mr. Goldberg and Dr. Sumpter testified that they felt it was necessary to await receipt of Quadrex's final Report in order to perform an orderly and comprehensive review. Findings VII.11, 17-18, supra. In any event, as described below, it is apparent that HL&P did not deliberately withhold any reportable information from the NRC.

RII.6. CCANP argues that by mid-March, 1981, HL&P had been informed of a "breakdown" in the STP ALARA program that represented a reportable breakdown in the STP QA program, but



deliberately failed to report that information to the NRC. The basis for CCANP's argument is that ALARA-related activities such as inservice inspection, maintenance and repair are governed by 10 C.F.R. Part 50, Appendix B and that, therefore, a "breakdown in a program . . . subject to Appendix B is a significant [QA] breakdown . . . reportable under" Section 50.55(e). CCANP FOF, ¶¶ II.9, III.17.

RII.7. The record reflects that B&R's ALARA program, at the time Quadrex performed its review, was adequate and generally typical of industry ALARA programs, but did not meet the more ambitious goals set by HL&P for STP. Findings VIII.72-73, supra. Given significant changes in the STP design since B&R's initial ALARA review, a re-review also appeared warranted and was anticipated to require a major effort. Finding VIII.74, supra. Although Dr. Sumpter referred to a "breakdown" in the STP ALARA program in his notes of a March 13 telephone conversation with Mr. Stanley (App. Exh. 71), and Mr. Stanley stated in a letter to Dr. Sumpter that B&R's method of ALARA review was "inadequate to meet HL&P's needs" (App. Exh. 65), neither felt that the STP ALARA program represented a significant QA breakdown. Finding VIII.75, supra. No evidence was presented that suggested that the information available to HL&P in mid-March 1981 regarding the STP ALARA program was reportable, or that HL&P conspired to withhold such information from the NRC. Instead, the record shows that the Quadrex ALARA-related findings were not reportable. Findings VIII.48-77, supra.



RII.8. Another technical issue cited by CCANP that arose during the Quadrex review concerned a specification error that resulted from a mistake in the application of the ASME code to certain penetration designs. CCANP Exhs. 94, 95. See CCANP FOF, ¶¶ II.15, 76, III.23, 24, 149, 183-85. CCANP argues that B&R's evaluation of the reportability of this item reflected adversely on the reliability of B&R reportability advice (CCANP FOF, ¶¶ II.15, III.149) and that Dr. Sumpter's testimony on this matter "sought to minimize" it, was inconsistent with his prefiled testimony, and reflected adversely on his credibility (Id. at ¶¶ III.183-85). Neither argument is valid. As CCANP concedes (Id. at ¶ III.149), the matter was not reportable because the penetrations, as designed, were within code limits. See CCANP Exhs. 94 and 95. The error was simply not a significant deficiency within the meaning of 10 C.F.R. § 50.55(e)(1)(ii). Id. Thus, it does not reflect adversely on B&R that it advised HL&P that this matter was not a "deficiency" under Section 50.55(e); and since B&R corrected the specification (CCANP Exh. 94), CCANP's speculation about later design changes (CCANP FOF, ¶ III.149) is irrelevant. Dr. Sumpter's testimony on this matter was clear and appropriate. Although CCANP implies that Dr. Sumpter testified reluctantly on this ASME code issue, the record reflects that Dr. Sumpter promptly volunteered a description of the matter, in response to CCANP's inquiry. Tr.

12783-84 (Sumpter). 6/ See also, Tr. 12784-85, 12792-94 (Sumpter). Obviously, there was absolutely no effort by Dr. Sumpter to avoid discussing the ASME error, or to minimize his knowledge of that matter or any of the actions taken in response to it. Furthermore, CCANP confuses Dr. Sumpter's explanation of why the error was not reportable with an alleged effort to "minimize his response." Dr. Sumpter's testimony was credible and was corroborated by the documentary evidence (CCANP Exh. 94 and 95).

RII.9. CCANP recites a litany of allegedly reportable deficiencies in the B&R engineering process identified by Quadrex in its briefings of HL&P on March 18, April 13, and April 30, 1981 which, it argues, HL&P willfully concealed from the NRC. CCANP FOF, ¶¶ II.10-14, III.18-22, 54. CCANP cites a number of topics covered in the March 18 meeting, or referenced in the notes Mr. Stanley prepared for the meeting (including his reference to a "chaotic" work situation (CCANP FOF, ¶¶ II.10, III.18)), and refers to the need for a "planned, orderly and controlled" design process (Id. at ¶ II.12).

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6/ As CCANP notes (CCANP FOF, ¶ III.183), Dr. Sumpter's prefiled testimony did not refer to the ASME error. It is evident, however, that the answer criticized by CCANP (Sumpter, ff. Tr. 12699, at 11) conveyed Dr. Sumpter's general opinion that he did not believe sufficient information existed prior to receipt of the Report to conduct a comprehensive review of the Quadrex findings. We perceive no effort to hide the ASME item. Furthermore, we believe that HL&P's review of this item in the midst of the Quadrex review, in response to Quadrex's specific recommendation to do so, shows that Quadrex and HL&P were conscientious in reviewing the reportability of findings that appeared to merit such review.

RII.10. The March 18 meeting was quite brief and, as Mr. Stanley testified, his comments were based on limited evidence and likely to change as more evidence was obtained and reviewed. Finding VII.7, supra. Mr. Stanley testified that he did not intend to suggest (through his reference to a "chaotic" work situation) that there was any QA concern, but simply, that various design activities had not yet started, were in preliminary stages or were out of sequence. He stated that the "work products that were completed . . . [were] generally technically quite good." Tr. 13083-84 (Stanley). Furthermore, there is no evidence that such a statement was actually discussed with HL&P on March 18 (Tr. 13083-84 (Stanley)); Mr. Stanley testified that he did not cover every item in his notes for the meeting (Tr. 13077-78 (Stanley)). CCANP fails to explain why any comments at the March 18 meeting were reportable and there is no evidence in the record which would support such an assertion.

RII.11. The information obtained by HL&P at the April 13 meeting, coupled with Quadrex's ALARA concerns and the matters discussed on March 18, is alleged by CCANP to have provided HL&P with "all the information they needed to conclude that B&R's engineering was in a state of collapse" and to report "an engineering breakdown" to the NRC. CCANP FOF, ¶¶ II.13, 19. Without a single supporting citation, CCANP alleges that much of the information presented at the April 13 meeting violated various criteria of 10 C.F.R. Part 50, Appendix B. Id.

RII.12. At the April 13 meeting, Quadrex summarized a large number of its preliminary findings but identified none as being reportable or potentially reportable. Findings VII.9-10, supra. See RII.8, n.6. Furthermore, Applicants' witnesses explained their rationale for not conducting a reportability review immediately after the April 13 meeting (Findings VII.10-11, supra) and CCANP has provided no basis for finding fault with that rationale. CCANP refers specifically to the discussion at the April 13 meeting regarding "use of preliminary data up to fuel loading." CCANP FOF, ¶ III.202. To the extent that CCANP is alleging that, as a precursor to generic finding 3.1(j) the matter was reportable, we have already concluded that CCANP is in error. Findings VIII. 152-58, supra.

RII.13. CCANP appears to suggest that there is some inconsistency between Mr. Goldberg's prefiled testimony (in which he indicates that the discussion at the April 13 meeting was "fairly general"), and his notes of the meeting and testimony which reflect that the meeting lasted for several hours and that Quadrex summarized a large number of findings on a discipline by discipline basis. CCANP FOF, ¶ III.20. Mr. Goldberg's prefiled testimony described the April 13 meeting at greater length than implied by CCANP and referred not only to the fact that the meeting "lasted several hours" but also to Quadrex' discipline by discipline summary of its findings, to the "significant number of findings" discussed and to Mr. Goldberg's judgment as to the "potentia[1] significan[ce]" of the findings. Goldberg, ff. Tr.

11491, at 10-11. CCANP also points out alleged inconsistencies between Dr. Sumpter's description of the meeting in his sworn statement to the NRC (CCANP Exh. 98) and other Phase II exhibits (App. Exh. 57; CCANP Exh. 101). CCANP FOF, ¶¶ III.189-90. Dr. Sumpter's sworn statement describes the April 13 Quadrex briefing in two sentences, one of which states that "[t]he only comments of any significance [addressed at the meeting] were relating to computer code verification" (CCANP Exh. 98 at 4), while Mr. Goldberg's notes of that meeting (App. Exh. 57) identify a large number of topics. CCANP FOF, ¶ III.189. Obviously, Dr. Sumpter's statement to the NRC was not intended to be a comprehensive account of the April 13 meeting; indeed it may have been simply a description of HL&P's comments at the meeting. Compare Tr. 14599 (Robertson). Furthermore, there is no evidence to suggest that, either then or now, Dr. Sumpter's recollection of that meeting was different from his account in his sworn statement.

R11.14. CCANP next argues that by the end of April (after Quadrex's April 30 briefing), "HL&P knew the basis for every specific finding. . . ." (CCANP FOF, ¶ II.14), and that, in the face of the "immense" amount of information available, Mr. Goldberg engaged in a "willful act of concealment" in not notifying the NRC. Id. at ¶ III.22. In the Board's view it was reasonable for HL&P to await receipt of Quadrex's written findings and their documented bases before conducting its reportability review. See ¶ II.10, Findings VII.16-18, supra.

CCANP has identified no reportable information presented at the April 30 meeting, and, in any event, HL&P's reportability review was completed within about a week of that meeting.

RII.15. CCANP also alleges that in Mr. Goldberg's contact with the NRC Project Manager, Mr. Sells, prior to May, 1981, he "talked Mr. Sells out of" requesting that a copy of the Report be sent to the NRC. CCANP FOF, at ¶ III.16. Prior to receipt of the Report, Mr. Goldberg informed Mr. Sells that the review was being commissioned (Finding VII.2, supra), and offered to brief NRC when the report was received (Finding VII.14, supra). Contrary to CCANP's allegations, Mr. Goldberg did not talk Mr. Sells out of requesting the report; he simply explained to Mr. Sells that HL&P did not plan to submit the Report to the NRC but that copies of the Report would be made available at HL&P's offices for NRC to review at its convenience. Id.; Tr. 12671-72 (Goldberg). Mr. Goldberg testified that the Quadrex Report contained advisory opinions of a type often reflected in consultant reports and that it was not provided to the NRC because consultant reports were not routinely provided to the NRC by either HL&P or the industry. Goldberg, ff. Tr. 11491, at 21; Tr. 12554 (Goldberg). CCANP argues that Mr. Goldberg's characterization of the Quadrex Report as typical of consultant reports received by NRC licensees was inconsistent with his testimony that, in 1981, commissioning a review such as the Quadrex study was unique in the industry. CCANP FOF, ¶¶ III.180, 195. We see no inconsistency. It is apparent to us that CCANP



is confusing the commissioning of the Quadrex review with the results of the review. As we have found (see Finding VII.2, supra), the commissioning of the Quadrex review was unique in 1981. However, there is no reason why a unique review would not produce a report containing advisory opinions of a type that would be reflected in numerous reports by consultants (reflecting reviews of more limited scope). It is also fully consistent that, in deciding whether to provide the Report to the NRC under circumstances where he had determined there was no regulatory requirement to do so, Mr. Goldberg would consider the practices of HL&P and the industry as to providing consultant reports to the NRC.

R11.16. As described above, CCANP's assertion that HL&P conspired to withhold reportable information prior to receipt of the Quadrex Report lacks any basis in the record. CCANP has failed to show how any of the information received prior to receipt of the Report met the reporting criteria of Section 50.55(e), and failed to tie such information to any of the specific Quadrex findings in issue. Perhaps more importantly, CCANP has failed to establish any basis for questioning HL&P's good faith in deciding that the reportability review should be based on the final Quadrex Report, rather than the preliminary briefings. There is simply no evidence supporting CCANP's charge that there was a deliberate attempt to conceal reportable information.



RII.17. Perhaps the principal element of CCANP's "conspiracy" theory, however, is its allegation that through the structuring and conduct of its reportability review, HL&P "conspired" to minimize the number of findings identified as reportable. CCANP charges that the review process represented an abuse of Mr. Goldberg's authority and an abdication of HL&P's responsibility as an NRC licensee. CCANP also argues that many of those actions reflect adversely on Mr. Goldberg's competence. CCANP FOF, ¶¶ II.22-23, 58-59, 62-66, 70-78, III.100-50, 155-202. We do not agree. As described in more detail below, we find no evidence of a "conspiracy." We believe that HL&P's reportability review was structured and conducted in a manner calculated to provide a prompt professional assessment of the reportability of the Quadrex findings and Report, and that Mr. Goldberg neither abused his authority nor abdicated HL&P's responsibility as an NRC licensee.

RII.18. There are a number of aspects of the review process which CCANP cites as evidence of the alleged conspiracy. We address them seriatim. CCANP alleges that HL&P (and Mr. Goldberg in particular) engaged in a "carefully planned effort" to minimize the number of findings identified as reportable by: (1) using a Review Team comprised of Messrs. Goldberg, Sumpter and Robertson, to the exclusion of the HL&P Incident Review Committee (IRC), HL&P discipline engineers and Mr. Stanley (CCANP FOF, ¶¶ II.22-23, III.104, 122, 124, 134-40, 145); (2) giving B&R the "major responsibility" for conducting the review (Id. at

¶¶ II.22-23, III.113A, 147-50); (3) limiting the review to the "most serious" discipline findings (Id. at ¶¶ II.22-23, III.106-08, 146); (4) limiting the review period to 24 hours (Id. at ¶¶ II.22, III.104-05, 118); and (5) unduly influencing Messrs. Robertson and Sumpter during the course of the review process (Id. at ¶¶ II.71, III.117, 142-43).

RII.19. CCANP alleges that Mr. Goldberg "abused his authority by usurping the role of [the IRC]" and utilizing the HL&P Review Team to assess the reportability of the Quadrex Report and findings. CCANP FOF, ¶ II.23. It is CCANP's position that the IRC would have brought "greater knowledge" of B&R's work and a "broader perspective" to the review than did the Review Team. Id. at ¶ III.137; see CCANP FOF, ¶¶ II.78, III.127-29, 138-40, 145. CCANP speculates that if HL&P's standard IRC procedure had been utilized, Mr. Powell (the IRC Chairman) "certainly would have forwarded the . . . Report to the IRC . . .," the "cognizant discipline engineers would have been involved . . ." in the evaluation, and a representative of the QA Department would have participated in the review ("an element sorely lacking" in the Review Team according to CCANP). 7/ Id.

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7/ According to CCANP, HL&P's QA representative on the IRC would have issued a stop work order "if serious [sic] program deficiencies existed. . . ." Id. at ¶ III.136 (emphasis added). Although CCANP repeatedly refers to the need for stop work orders (see, e.g., CCANP FOF, ¶¶ II.10, 11, 13, III.150), there is no issue in this proceeding regarding the need for such orders, no evidence in the record of such a need, and no indication of the relationship, if any, between the criteria for the issuance of stop work orders at STP and the criteria for  
(footnote continued)

at ¶¶ III.135, 139. CCANP also alleges that Mr. Goldberg "controlled the wording" on the oral notifications so that the Quadrex Report was not mentioned (CCANP FOF, ¶¶ II.22, III.144) and that, if the IRC had conducted the review, minutes documenting the reportability determination would have been generated. 8/ Id. at ¶ III.135(8). Conspicuously absent from CCANP's series of speculations is any assertion, let alone evidence, that if left to the IRC, any matter not actually reported would have been determined to be reportable. Moreover, in view of our findings on reportability and the B&R advice on May 8, 1981, it appears unlikely that the IRC would have chosen to report any more findings. Consequently, CCANP's arguments, are not material to Contention 9.

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(footnote continued from previous page)  
reportability under Section 50.55(e). See Tr. 11713 (Goldberg); App. Exh. 62 at 1. CCANP's allegation that HL&P QA was "blocked" from taking any action on the Quadrex Report (CCANP FOF, II.24, III.154) is no more than an effort to relitigate Contentions 1.8(a) and (b) which were addressed and resolved by the Board in our Phase I PID, LBP-84-13, 19 NRC at 713-14.

8/ CCANP also claims that Mr. Goldberg and Mr. Robertson gave inconsistent testimony regarding the amount of IRC activity in the first half of 1981. CCANP FOF, ¶ III.204. The context of their respective testimony, however, shows that Mr. Goldberg testified about the small number of matters reported to NRC (Tr. 12647-98 (Goldberg)), while Mr. Robertson mentioned a greater number of items brought to the attention of the IRC chairman, not all of which were considered in IRC meetings (Tr. 14587-88 (Robertson)). There was simply no inconsistency in this testimony and no significance to the point in any event.

R11.20. CCANP's assertion that the IRC was "perhaps" better equipped to review the Report than the Review Team (CCANP FOF, ¶ II.78; see also CCANP FOF, ¶¶ III.129, 137-40) is totally without merit, and, in any event, irrelevant. Messrs. Goldberg, Sumpter and Robertson were HL&P's three most experienced and senior nuclear engineers and their professional experience is significantly greater than that of the IRC members. Messrs. Goldberg and Robertson had attended one or more Quadrex briefings and Dr. Sumpter had the greatest exposure to the Quadrex findings, having attended all of the briefings and numerous other meetings with Quadrex. Goldberg, ff. Tr. 11491, at 8, 9-11, 12, 18; Sumpter, ff. Tr. 12699, at 6-9; App. Exh. 60 at 2-3, 2-6, 2-9, 2-10; Tr. 14714-18 (Robertson); Tr. 12527-31 (Goldberg); CCANP Exh. 98. (See Findings VII.5-7, 9, 16, supra). Although Mr. Blau and Mr. Overstreet certainly had lengthier tenure on STP than Mr. Goldberg and Mr. Robertson, Dr. Sumpter's long term involvement in the STP design (see Sumpter, ff. Tr. 12699, at 2, 3-4) gave the Review Team ample background in the Project design. Tr. 12527-31 (Goldberg). Mr. Goldberg and Mr. Robertson gave the review team expertise in a broad range of engineering management and technical issues. Tr. 14714-18 (Robertson); Tr. 12527-31 (Goldberg). Even if there were some basis for CCANP's comparison, however, the Review Team was amply qualified and HL&P's decision to have the Review Team conduct the review was clearly reasonable.

RII.21. CCANP argues that Dr. Sumpter's prefiled testimony regarding his experience was inconsistent with his testimony under cross-examination. CCANP FOF, ¶¶ III.187-188. There is no inconsistency. Dr. Sumpter's prefiled testimony stated that he had managerial responsibility for Section 50.55(e) reporting of design deficiencies from 1975 to 1981. Sumpter, ff. Tr. 12699, at 3. In his oral testimony, Dr. Sumpter explained that he had such responsibility for the Allens Creek and South Texas Projects until 1978 at which time that function for STP shifted to Project personnel although he retained that function for Allens Creek. Tr. 12750-51, 12913-14 (Sumpter). Furthermore, Dr. Sumpter's prefiled testimony does not suggest, as CCANP alleges, that he was responsible for development of reporting procedures after 1978. On the contrary, he testified that, as Manager, Nuclear Services, he had responsibility "at various times" for Nuclear Licensing and other activities, and "[a]s part of . . . [his] responsibility for STP licensing activities, . . . [he] supervised the development of . . . reporting procedures. . . ." Sumpter, ff. Tr. 12699, at 2-3. Finally, we find no inconsistency in Dr. Sumpter's statement that his responsibility as Manager of Nuclear Services included review of SDDs, specifications and selected drawings (Id. at 3-4) and his statement that, after 1978, he had "managerial responsibility" for engineers who performed that function (Tr. 12752-53 (Sumpter)). Dr. Sumpter's testimony was not misleading; such reviews were clearly still within his area

of responsibility when performed primarily by his staff. His experience related to STP design and the Quadrex review clearly qualified him to participate in the review of the Report.

RII.22. CCANP also argues that use of the established HL&P Section 50.55(e) review procedure would have involved the HL&P Engineering staff in the process, bringing a greater breadth of knowledge to the process. However, there is no evidence that the members of the Review Team did not have sufficient knowledge to assess all of the findings that were reviewed on May 8, 1981. Cf. Tr. 12799 (Sumpter); Tr. 14611-12, 14714-15 (Robertson); Tr. 12467 (Goldberg). In fact, their testimony concerning their knowledge as of May 8 of specific facts associated with individual findings was quite comprehensive. E.g., Tr. 11545-46, 11563-64, 12389-91, 12445-48 (Goldberg); Tr. 12712-14, 12726-37, 12783-85, 12790-93, 12843-48, (Sumpter); Tr. 14620-24, 14658-67, 14699-704, 14712-14, 14789-98 (Robertson). Moreover, although HL&P engineers were undoubtedly available if any additional information was needed, the review team did not have occasion to call on them during this review session. Tr. 14650 (Robertson). The record shows that the HL&P review team had ample information available to it to perform its review. Cf. Tr. 14643-47 (Robertson); Sumpter (Supplemental), ff. Tr. 15357, at 1-4.

RII.23. According to CCANP, HL&P's "exclusion" of the IRC's QA representative "made it more likely that QA deficiencies would not be perceived" and "demonstrates an inadequate concern for quality." CCANP FOF, ¶ II.72. However, the Review Team was



sensitive to QA concerns (cf. Goldberg, ff. Tr. 11491, at 33-34) and two of the matters it found potentially reportable were QA concerns. Id. at 34-36; Tr. 12879 (Sumpter). As experienced managers of engineering the members of the Review Team were well qualified to review findings regarding requirements for engineering work, including QA requirements. Tr. 14714-16 (Robertson); Tr. 12528-31 (Goldberg).

R11.24. CCANP also speculates that if the IRC had performed the review, the telephone minutes of the verbal reports to the NRC on May 8 would have referred to the "source" of the deficiencies (i.e., the Quadrex Report) and their "extent" (i.e., a 500 page report containing more than 300 findings), and that minutes documenting the reportability determinations would have been produced. CCANP FOF, ¶ III.135(7-8). The record, however, shows that in preparing the May 8 notification to the NRC, an inquiry was made as to whether HL&P usually informs the NRC of the "source" of its Section 50.55(e) reports, and that inquiry was answered in the negative. Tr. 14669-70 (Robertson); Finding VII.47, supra.

R11.25. In FOF, ¶ III.203, CCANP contrasts Mr. Goldberg's testimony that there were "no instructions" concerning whether the source of a potentially reportable finding should be identified in a written Section 50.55(e) report with the then applicable HL&P Section 50.55(e), Part 21 procedures. Even if this criticism were valid, we would find no significance in Mr. Goldberg's lack of recollection of an item in an outline



attached to a procedure. However, as is apparent from the context of Mr. Goldberg's testimony, he was referring to "the precise contractual source" (i.e., a consultant's report), of the information, which was rarely, if ever discussed in HL&P's Section 50.55(e) reports. Tr. 12610 (Goldberg). The reference in the outline in HL&P's procedures cited by CCANP obviously call for substantive information, not for the contractual source of the information. As Mr. Robertson explained, HL&P did not normally include the source of information (Tr. 14741 (Robertson)) unless it was pertinent to an understanding of the reported item and its scope (Tr. 14744-45 (Robertson)), and this was not the case with respect to the items reported on May 8, 1981 (Tr. 14745-47 (Robertson)). Accordingly, we find no inconsistency between Mr. Goldberg's testimony and HL&P's procedures in 1981. See also Finding VII.47, supra.

R11.26. With respect to CCANP's argument that formal minutes were not generated by the Review Team (CCANP FOF, ¶ III.135(8)), we have found that the available documentation of its efforts is essentially comparable and functionally equivalent to the documentation which would have been prepared had the IRC performed the review. Though under current procedures more extensive documentation would be prepared for non-reportable items, the available documentation of such items from the Review

Team satisfies NRC guidance and was adequate to permit the Staff to make its own reportability judgments. 9/ Finding VII.48, supra.

RII.27. In short, HL&P's use of the Review Team to assess the reportability of the Quadrex Report was a prudent judgment which demonstrated the importance HL&P management placed on assuring a prompt and accurate reportability review. While HL&P's May, 1981 reporting procedure did not expressly authorize use of the Review Team to conduct reportability analyses, Mr. Goldberg's decision not to utilize the IRC and instead to utilize HL&P's most senior and experienced nuclear officials could not possibly represent an abuse of his authority. Mr. Goldberg's "only reason" for not utilizing the IRC was his desire to have his most senior management perform the review. 10/

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9/ CCANP criticizes HL&P for "exclud[ing] the author of the Quadrex Report . . ." (Mr. Stanley) from its review process (CCANP FOF, ¶ II.22(2)), though it also charges that HL&P erroneously relied on Quadrex's categorization of its findings because Mr. Stanley admitted he lacked the qualifications to perform a Section 50.55(e) reportability evaluation of the Report. CCANP FOF, ¶¶ III.102, 146. As indicated at § RII.32, infra, HL&P's reliance on Quadrex's categorization was reasonable and Mr. Stanley was not "excluded"; he was available to B&R for consultation during its review. Tr. 13198 (Stanley). The HL&P Review Team meeting was an HL&P responsibility and was properly treated as such.

10/ CCANP also points out a number of differences in the recollections of the Review Team members and Mr. Stanley regarding the details of a discussion between Mr. Stanley and Mr. Goldberg on May 7 (CCANP FOF, ¶ III.197), the length of the B&R review session on the evening of May 7 (Id. at ¶¶ III.110, 200) and the length (and occurrence) of a meeting of the members of the Review Team on the morning of May 8 (Id. at ¶¶ III.114, 198). We do not find such slight  
(footnote continued)

Finding VII.26, supra. As Mr. Goldberg stated in explaining his selection of Dr. Sumpter and Mr. Robertson, "I had the most potent team who had about as much independence from the day-to-day activities I felt was needed to make that kind of an assessment." Tr. 12670-71 (Goldberg). We believe that his judgment was reasonable.

RII.28. CCANP also alleges that Mr. Goldberg attempted to minimize the number of findings identified as reportable by giving B&R "the major responsibility for making reportability determinations . . .," that HL&P merely "ratified" B&R's judgments "without doing any independent research," and that accordingly, HL&P abdicated its responsibility as an NRC licensee. CCANP FOF, ¶ II.22-23. CCANP argues that, given the level of B&R disaffection on the Project and hostility to the Report, B&R had the "greatest incentive to minimize the number of reportable findings." Id. at ¶ III.147; see also Id. at ¶¶ III.148, 207.

RII.29. Contrary to CCANP's allegations, HL&P did not abdicate to B&R the "major responsibility" for conducting the Quadrex Report reportability review. As the organization with the most detailed familiarity with the STP design, it was prudent to have B&R assess, in the first instance, the reportability of the Quadrex findings. The B&R reviewers included the lead discipline engineers for those aspects of the STP design and they

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(footnote continued from previous page)  
differences in recollection to be significant or surprising given the time that has elapsed since those events.

reviewed their determinations with B&R's most senior engineering management. Finding VII.23, supra. Furthermore, while CCANP alleges that B&R had the "greatest incentive" to limit the number of reportable items, there is no evidence that the B&R assessment was conducted in anything other than a professional and businesslike manner. See Tr. 14718-19 (Robertson); Tr. 12811-13 (Sumpter). B&R had the same incentive as HL&P to perform a proper review; it was responsible to HL&P contractually and professionally to perform its review competently (CEU Exh. 1), its failure to perform the review properly would have been damaging to its reputation, and it had an independent legal responsibility under 10 C.F.R. Part 21 to report significant deficiencies. Furthermore, seeking the advice of the A-E is reasonable in such circumstances and there is absolutely no evidence to suggest any improper motive in Mr. Goldberg's decision to do so in this case. 11/

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11/ CCANP also asserts that B&R's review "was apparently solely a product of the analysis [it] . . . was able to perform between receipt of the Quadrex Report on the morning of May 7, 1981 and the delivery of the Report to HL&P at noon on May 8." CCANP FOF, ¶ III.113A. On the contrary, B&R had worked closely with Quadrex during the review in providing information and documentation, as well as in responding to questions. Finding VII.5, supra. Furthermore, the briefing on May 1 provided B&R the opportunity to begin investigating the areas covered by the Quadrex findings. Finding VII.16, supra. Thus, B&R was knowledgeable of the areas that would ultimately be addressed in the Quadrex Report. It had sufficient information available at that time to assess the reportability of the findings it reviewed. Tr. 12799-805 (Sumpter); Tr. 14611, 14713-14 (Robertson).

RII.30. Most importantly, the record is clear that HL&P recognized and asserted its responsibility to decide for itself which items were reportable. Finding VII.29, supra. The Review Team did not merely "ratify" B&R's determinations. Mr. Goldberg testified that B&R's analysis was "treated strictly as input" and recognized that "[t]he ultimate responsibility for reportability does fall on the licensee . . . ." Tr. 11750-51 (Goldberg). That information, along with the other information at the Review Team's disposal, was used by HL&P to make its own reportability judgments. Finding VII.29, supra. HL&P's judgments were clearly independent of B&R, since it reported two matters over B&R's objection. Goldberg, ff. Tr. 11491, at 34-36; Tr. 11713-16, 11809-10 (Goldberg). Thus, HL&P did not abdicate its responsibility in utilizing B&R's assessment of the reportability of the Quadrex findings in conducting its review, and did not, through that vehicle, attempt to minimize the number of Quadrex findings determined to be reportable.

RII.31. CCANP also argues that Mr. Goldberg further minimized the number of Quadrex findings which would be determined to be reportable by limiting the review to the "most serious" discipline findings. CCANP FOF, ¶ II.22. CCANP takes issue with the "significance" Applicants place on the distinction between the generic and discipline findings; it argues that since Quadrex did not possess the "expertise" to assess the

reportability of its findings, HL&P abdicated its responsibility by relying on its categorization of findings into "most serious," "serious," etc. Id. at ¶¶ III.107-08, 146.

RII.32. Regardless of the "significance" to be attributed to the fact that the generic findings were based entirely on the discipline findings, Mr. Stanley made it clear, both during the Quadrex review and at the hearing, that by reviewing the "most serious" discipline findings HL&P would be able to identify all matters that might possibly be reportable. Stanley, ff. Tr. 13047, at 5; Tr. 13139-50 (Stanley); Findings VII.30, 32, supra. Furthermore, it was not at all unreasonable for HL&P to rely on Quadrex's classification scheme in determining which findings to review. While Mr. Stanley may not have felt that he possessed sufficient information to assess whether or not the Quadrex findings met the specific reporting criteria of Section 50.55(e), he was clearly capable of assessing whether or not there was at least the possibility that those findings might be reportable and to eliminate those clearly unrelated to safety considerations. Stanley, ff. Tr. 13047, at 5; Tr. 13149-50 (Stanley). In any event, CCANP points to no evidence to support its assertion that Mr. Goldberg's decision to limit the review to the "most serious" discipline findings was motivated by an intent to conceal reportable deficiencies.

RII.33. In a separate argument, CCANP points out apparent inconsistencies in Mr. Goldberg's testimony as to when he first became aware that there would be "generic findings" in



the Quadrex Report. (CCANP FOF, ¶ III.194) We should emphasize that we fail to see any significance in whether Mr. Goldberg became so aware on May 7, April 30 or April 13, 1981, or at the outset of the review. His most definitive statement on this subject is his prefiled testimony, which reflects that in the meeting on April 30, 1981, Quadrex discussed the fact that the generic findings were based on the discipline findings. Goldberg, ff. Tr. 11491, at 12-13. When Mr. Goldberg testified on July 12, 1985, his recollection was not that precise; however, he explained that he did not appreciate that there would be generic "findings," as such until he actually saw the report. Tr. 11673, 11676 Goldberg. In any event, we see no inconsistency in Mr. Goldberg's testimony that would meaningfully affect our decision.

R11.34. The next aspect of HL&P's review upon which CCANP relies for its conspiracy theory is Mr. Goldberg's decision to complete the review within 24 hours of HL&P's receipt of the Report rather than utilize the 14 days authorized by Staff guidance. CCANP FOF, ¶¶ II.22-23, III.104-05, 118. On the one hand, CCANP criticizes HL&P for not reporting information immediately upon receipt in March-April, 1981, and, on the other hand, argues that it should have taken more time to review the Report once received. Although CCANP claims that a competent review could not be performed in the time allotted (CCANP FOF, ¶¶ II.77, III.105, 118-21), it does not provide any record support for its claim. The record shows that B&R engineers



reviewed and documented their review of every most serious discipline finding, and that HL&P reviewed B&F's advice and reached its independent judgment, all in little more than a day. Findings VII.23-24, 29, 35, supra. In any event, there is no evidence that Mr. Goldberg's decision to review the Quadrex Report and report any reportable matters to the NRC within 24 hours was intended to reduce the number of items found to be reportable. On the contrary, we believe that, given the fact that HL&P had received several briefings by Quadrex on its preliminary findings and that HL&P had assured that B&R would mobilize the engineering resources needed for a prompt review, Mr. Goldberg's decision to promptly review the Report within 24 hours and not utilize all of the time authorized by the Staff guidance indicates his desire to notify the NRC promptly of any reportable deficiencies and therefore reflects favorably on his character and competence.

RII.35. In CCANP FOF, ¶ III.201, CCANP contrasts Mr. Goldberg's statement that Dr. Sumpter and Mr. Robertson had spent May 7, 1981 working "at great length with Brown & Root engineers in trying to establish such matters as the design status" with evidence that they did not actively contribute to B&R's deliberations on the evening of May 7. The record is clear that Applicants asked B&R to review the Quadrex Report upon its receipt on May 7 and to make reportability recommendations to Applicants by May 8. Nowhere is there any indication that Applicants sought to participate, or to take credit for any

participation, in B&R's review. When the testimony of Mr. Goldberg cited by CCANP is read in context, it is obvious that he was responding to a question as to whether the HL&P Review Team was familiar with the status of various B&R design activities, and that he referred to the attendance of Dr. Sumpter and Mr. Robertson at the B&R May 7 meeting only as a source of such information. Tr. 11736-37 (Goldberg). We see no inconsistency between Mr. Goldberg's testimony and the facts, and the ambiguity in his language does not create any question of importance to our decision.

R11.36. The last aspect of the review process which CCANP cites as further evidence of a "conspiracy" was Mr. Goldberg's alleged undue influence on the other members of the Review Team. CCANP argues that the fact that the review took place in Mr. Goldberg's office, with Mr. Goldberg behind his desk and Dr. Sumpter and Mr. Robertson in chairs in front of the desk, "emphasized the organizational power arrangement . . ." and demonstrated Mr. Goldberg's "clear intent to emphasize his authority to overrule any decision of his subordinates and his intention to control the reportability decision . . . ." <sup>12/</sup> CCANP FOF, ¶¶ III.117, 143. Its assertion is pure fabrication

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<sup>12/</sup> CCANP also argues that the fact that the Review Team was comprised of "Mr. Goldberg and two organizational subordinates," created a process whereby "full . . . exploration and exchange of views . . . ." would be "less likely . . . ." CCANP FOF, ¶ II.71. Contrary to CCANP's assertion, we believe that the fact that Mr. Goldberg was personally involved in the reportability review demonstrates management involvement in the Project and reflects favorably on HL&P's character.

and at odds with the testimony of the Review Team members. 13/ Furthermore, there is no evidence that Mr. Goldberg's simple statement that he would not "gratuitously" turn the Report over to the NRC if HL&P did not routinely do so (Tr. 12885-86 (Sumpter)) "clouded" Dr. Sumpter's or Mr. Robertson's independence in reviewing the Quadrex findings for reportability. CCANP FOF, ¶¶ III.115, 142.

RII.37. CCANP has failed to provide any evidence to suggest that HL&P's structuring and conduct of the Quadrex reportability review was in any way improper or improperly motivated. We find that the review was conducted in a reasonable manner and that it was designed to, and did in fact, provide a prompt and appropriate assessment of the reportability of the Quadrex Report and findings. 14/

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13/ There is absolutely no evidence of a single instance in which Dr. Sumpter or Mr. Robertson felt a finding was reportable and Mr. Goldberg vetoed or persuaded them otherwise. Dr. Sumpter testified that the Review Team discussed each item and "reached a consensus" (Tr. 12878-79 (Sumpter)) and Mr. Robertson testified that by noon on May 8 he had "reached the conclusion there were three matters to be reported, and . . . Dr. Sumpter also agreed . . . ." Tr. 14724 (Robertson). See also, Tr. 14637 (Robertson). He recalled no instance in which one member of the Review Team felt some item was reportable and then, after discussion, it was determined not to be reportable. Tr. 14638-41 (Robertson).

14/ CCANP's assertion at CCANP FOF, ¶ II.152, that "Dr. Sumpter and Mr. Robertson were concerned enough about the reportability review process to revisit every finding . . . after the May 8 evaluation" is not accurate. Dr. Sumpter testified that the purpose of his meeting with Mr. Robertson in the summer of 1981 was to provide Mr. Robertson with the benefit of his knowledge and experience so that Mr. Robertson could "follow-up" and close the

(footnote continued)

RII.38. According to CCANP, the alleged conspiracy continued beyond May 8, 1981 with the IRC "hiding the existence of the Quadrex Report" through, inter alia, the absence of references to the Report in the written Section 50.55(e) reports and IRC minutes (CCANP FOF, ¶¶ II.24, III.135(7), 153, 203), and efforts to provide only limited briefings to NRC officials in order to avoid close NRC scrutiny of the Report (Id. at ¶¶ II.60, III.91-92). CCANP also voices its "suspicion" that the NRC Staff colluded in the alleged conspiracy. Id. at ¶¶ III.91-97.

RII.39. With respect to the absence of references to the Report in written Section 50.55(e) reports, we have already stated that such practice was consistent with HL&P's usual practice. ¶ II.18, supra; See also ¶ R.II.25, supra; Tr. 14784 (Robertson). Moreover, the fact that Quadrex was mentioned in one set of IRC minutes prior to May 8 hardly demonstrates an effort to conceal reportable items, particularly when viewed in light of HL&P's efforts to keep the NRC Staff informed regarding the Report. See Findings VII.2, 14, 49, 54-56, supra. On the contrary, the fact that, for the most part, internal IRC minutes do not refer to the Quadrex Report merely suggests that the involvement of Quadrex in identifying the deficiency was not

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Quadrex findings. Tr. 12823-24 (Sumpter). Though they considered the reportability of findings once again, that was not the sole purpose of their review. Tr. 12825 (Sumpter). Moreover, HL&P's re-review reflects its desire to assure that it fully complied with its reporting obligations, and reflects positively on its character.

important to the IRC and confirms that there was no improper motive reflected in the absence of such references in Section 50.55(e) reports.

RII.40. With respect to HL&P's alleged effort to provide NRC with only a "limited briefing" on the Report (CCANP FOF, ¶ II.60), we have previously concluded that HL&P was candid and open with Mr. Sells and the NRC Staff. 15/ Finding VII.49, supra. Furthermore, CCANP's allegation that Region IV (rather than NRR) was the appropriate arm of the NRC to inform regarding the Report and that "Mr. Goldberg knew that to be true" (CCANP FOF, ¶ III.92) is contrary to the evidence, including the testimony of the NRC Staff. Findings VII.50-51, supra.

RII.41. As for CCANP's suspicions regarding Mr. Sells' alleged involvement in the conspiracy, HL&P's "[s]uborning" of Mr. Sells (CCANP FOF, ¶ III.92), and Mr. Collins' creation of a "cover story" to mask his "inaction" on the Report (Id. at ¶III.97), we find CCANP's wild speculations to be entirely

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15/ CCANP also asserts that HL&P was "forced" to provide the Report to us and that after doing so, Messrs. Jordan, Oprea and Goldberg embarked on an effort "to minimize the importance of the . . . Report and their own roles in the entire affair." CCANP FOF, II.62-66. With respect to Mr. Reis' urging that the Report be provided to us, Mr. Goldberg stated that there was "no deliberation" and that "[i]f [the Report] was viewed [to be] of interest to the Board, a copy was furnished." Tr. 12555-56 (Goldberg). The record shows that upon being requested to do so by NRC counsel they promptly complied. Finding IX.15, supra. We find no evidence of any effort to minimize the import of the Report or the roles of HL&P officials in CCANP's charge regarding Mr. Goldberg's "imaginary and false testimony," Mr. Oprea's retirement or Mr. Jordan's claimed "ignorance" of Project conditions and Quadrex's work. CCANP FOF, ¶¶ II.63-66.

unwarranted by the record and hardly the good faith argument based upon the facts of record which we expect from parties before us. See LBP-85-45, slip op. at 13-15 (November 14, 1985). CCANP's assertions are particularly inappropriate where CCANP recognizes that they are irrelevant to our decision. CCANP FOF, ¶ III.97.

RII.42. An element of CCANP's conspiracy theory is its claim that HL&P kept the Quadrex Report secret. Tr. 11286, 11292-93 (Sinkin). The record shows that numerous persons participated in the Quadrex review (App. Exh. 60 at 2-2 through 2-10) and in the review of the Report for reportability (Tr. 14718-20 (Robertson)). Mr. Goldberg testified that the Report was treated like other consultant reports, and not kept secret. CCANP contends that there were inconsistencies regarding this point in Mr. Goldberg's testimony and in the statement Dr. Sumpter gave to the NRC investigators. CCANP FOF, ¶¶ III.178-90. Dr. Sumpter's sworn statement indicated that the Quadrex Report "was not maintained as a confidential document within our offices and numerous copies of the report were available here and at B&R," and that he was aware of "no instructions being given which would limit access to the report." CCANP Exh. 98 at 6-7. Similarly, Mr. Goldberg testified that the Quadrex Report was treated like numerous other reports and studies on the Project and that there were no instructions that it be kept "secret" or "confidential". Goldberg, ff. Tr. 11491, at 52. CCANP contrasts these statements with Dr. Sumpter's



January 1981 letter to Quadrex which provided that the plans for the review would be kept confidential and the review results maintained proprietary to HL&P. (CCANP Exh. 101). CCANP FOF, ¶¶ III.178, 190. There is no inconsistency. All that the letter indicates is that, as is often utility practice (Tr. 13062 (Stanley); see also Tr. 15253 (Sells)), information as to results of the review was not to be released without the utility's approval, and that "for the present" other parties, such as B&R, were not to be informed of the review by Quadrex. CCANP Exh. 101. In context, the letter is fully consistent with the testimony of Mr. Goldberg and the statement of Dr. Sumpter that the Quadrex Report or the hiring of an outside consultant was not maintained "secret" or "confidential" at the Project.

RII.43. CCANP also cites the testimony of Mr. Phillips that he was told the Report was considered "company confidential" and "strictly controlled." CCANP FOF, ¶ III.196; Phillips (Quadrex), ff. Tr. 15192 at 4. Regardless of what Mr. Phillips thought was meant by these terms, there is no reason to believe that, even if language of that kind was used, it meant anything other than what Mr. Goldberg described, i.e., the Report was not distributed to all employees of the STP nuclear group but to those who had a need to use it (Tr. 12405-06, (Goldberg)) and that the Report would be available for review by the NRC but not transmitted to it (Tr. 12404-05, (Goldberg)). There is ample evidence that the Report was not kept secret or confidential within the Project (Tr. 12868 (Sumpter); Tr. 15255 (Sells)) and

no evidence to the contrary (Tr. 15252 (Phillips)). Thus, we see no inconsistency in the evidence cited by CCANP in FOF, ¶ III.196. In fact the NRC (Mr. Sells) was informed of the outside review at an early stage, (¶ II.19, supra) so even had there been some inconsistency on this point, it would be of minor significance.

RII.44. CCANP also cites, as evidence of HL&P's alleged effort to keep the Report secret after its receipt, the fact that Mr. Stanley had to obtain Mr. Goldberg's permission to show the Report to representatives from other utilities, and notes the limited circumstances under which such review was authorized. CCANP FOF, III.178. CCANP contrasts these events with Mr. Goldberg's testimony that the Quadrex Report was treated on the project like numerous other reports and studies and that there were no instructions that it be kept "secret" or "confidential." There is no inconsistency because Mr. Goldberg was asked about distribution on the Project, while Mr. Stanley testified about third party requests. We have already discussed HL&P's legitimate desire to maintain the confidentiality of the proprietary aspects of the Report. ¶¶ II.41, supra. We find no evidence, in the events cited by CCANP, of any effort to limit NRC access to, or knowledge of, the Report, particularly since these events occurred after the Report had been released to this Board.

RII.45. In short, there is no evidence of any conspiracy on the part of HL&P officials to conceal either the Quadrex Report itself or any reportable matter. CCANP's charges are not supported by the record and do not cause us to modify the conclusions we reached in the earlier sections of our findings regarding HL&P's character.

B. Reportability of the Quadrex Findings and Report  
Legal Interpretation of 10 C.F.R. § 50.55(e)

RII.46. Although CCANP emphasized during the hearing its "first impression" theory, and we have accordingly addressed that theory in our decision (§§ II.3 through II.9, supra), in its proposed findings CCANP took the position that the distinction it had urged between reportable and potentially reportable deficiencies "is not material" to our decision. CCANP FOF, § II.7. We agree. The evidence of record shows that HL&P had enough information on May 8, 1985 to judge the reportability of the Quadrex Report and its findings, and that there was no instance of a decision on reportability being deferred pending an evaluation of the significance of the deficiency. §§ II.9-15, supra. Accordingly, there is no need for the Board to decide whether there may be theoretical distinctions between reportable and potentially reportable deficiencies.

RII.47. A number of the Quadrex findings at issue concerned the fact that certain design work had not yet been performed. E.g., App. Exh. 60 at 4-78. We have agreed with Applicants' position that the fact that a necessary task has not

been accomplished does not in itself constitute a reportable deficiency. E.g., Findings VIII. 39-40, supra. CCANP recognizes that there are "times when work not done is clearly not a violation of NRC requirements" (CCANP FOF, ¶ III.69), but it asserts that "there are also times when work not done is a violation, such as when the failure to do the work results from a lack of competence or has an impact on the quality of the project." Id. CCANP offers a series of examples to support its argument (CCANP FOF, ¶ III.70), but each example contains some allegation of a known design deficiency beyond the mere failure to perform a design task. Finally, CCANP cites the testimony of Mr. Robertson that if a design group has trouble producing design it raises the question of whether its design products are acceptable. CCANP FOF, ¶ III.71. However, Mr. Robertson did not suggest that such a question is reportable. Indeed, in just such a circumstance, he concluded that there was not a reportable deficiency. Tr. 14733 (Robertson); see also Taylor, ff. Tr. 14846 at 34, 42. Concerns about the design process, as opposed to the product, would be reportable only if they involved a significant breakdown in the QA program. Since Appendix B generally does not specify the timing of design activities, it would be an unusual circumstance in which the lack of progress of a design activity constituted a significant breakdown in a QA program. Although CCANP urges us to find that "Applicants placed undue emphasis on whether B&R work was complete, partial, or not commenced" (CCANP FOF, ¶ III.71), it does not cite any example

where Applicants improperly relied upon the status of design. Such a generalized argument does not contribute to resolution of the specific issues in controversy in this proceeding.

Generic Findings

RII.48. CCANP contends that "anyone with common sense reading [the generic] findings...would have no doubt that such findings should be supplied to the NRC immediately." CCANP FOF, ¶ III.38. In making this assertion CCANP does not address the 10 C.F.R. § 50.55(e) reportability criteria; neither does it address or even acknowledge the contrary conclusions of the expert witnesses whose testimony carefully examined the reportability of the generic findings.

RII.49. The generic findings are merely perceived commonalities among the findings regarding two or more disciplines and were not intended to be conclusions about the B&R design QA program. Stanley, ff. Tr. 13047, at 6-7. Accordingly, it is not possible to judge the significance of the generic findings without reviewing the specific bases. Several expert witnesses reviewed the generic findings at issue (and the questions and answers cited by Quadrex in support of them) and uniformly concluded that none was reportable. Bernsen/Lopez, ff. Tr. 13441, at 14 to 91; Taylor, ff. 14846, at 3 to 35; findings VIII.78-158, supra. Indeed, although numerous witnesses testified to some extent on the application of 10 C.F.R. § 50.55(e) to the Quadrex generic findings, no witness expressed

the view that any of them was reportable. See generally the testimony of the following witnesses: Taylor, E. Johnson, Carpenter, Goldberg, Sumpter, Robertson, F. Lopez, Bernsen, Stanley. Findings VIII.78-158, supra. The record thus refutes the CCANP assertion that the generic findings were, on their face, reportable.

RII.50. Beyond its general assertion, CCANP has proposed findings on only portions of four of the generic findings. CCANP FOF, ¶¶ III.52-55. We address CCANP's proposals in the next four paragraphs. Although CCANP has not proposed findings regarding the remaining six generic findings or the bulk of the four findings it does cite, the Board has thoroughly reviewed the record regarding them and has made separate findings on the reportability of each of them. Findings VIII.78-158, supra.

RII.51. CCANP argues that finding 3.1(a) "finds a lack of interdisciplinary coordination" and "Criterion III of Appendix B specifically requires coordination among participating design organizations." CCANP FOF, ¶ III.52. Although CCANP does not say so explicitly, it apparently contends these statements show that generic finding 3.1(a) was reportable. It then argues that "Applicants tried to portray the Quadrex finding as not reportable because Quadrex had not been exposed to the B&R System Design Assurance Group." Id. However, as we have found, Applicants' position was not so narrow. Although Applicants did cite the SDAG as a systems integration mechanism not reviewed by



Quadrex, they also cited other features of the B&R QA Program that fulfilled the requirements of Appendix B. Bernsen/Lopez, ff. Tr. 13441, at 18-19, 22-24. Applicants witnesses also cited their review of the bases for the Quadrex finding and their conclusions regarding B&R's implementation of its QA program. Id. See also Tr. 14730-32 (Robertson). The record shows that the B&R systems for controlling interfaces between design organizations met regulatory requirements and that Quadrex finding 3.1(a) did not identify a significant breakdown in the QA program. Findings VIII.80-89, supra. This conclusion was shared by the expert witnesses and the manager of the Quadrex review. Bernsen/Lopez, ff. Tr. 13441, at 19-29; Taylor, ff. Tr. 14846, at 3-5; Tr. 13093-94 (Stanley). Moreover, despite the limited participation of SDAG in the Quadrex -- B&R meetings, the Quadrex Report did not review the SDAG discipline (App. Exh. 63 at 2-2, 2-6 through 2-8; see also App. Exh. 60 at 1-1; Finding VIII.81) and the effectiveness of SDAG could not be reviewed in early 1981 because its work was not yet reflected in design products. Bernsen/Lopez, ff. Tr. 13441, at 16-18, 27-28; Tr. 13199-200 (Stanley). Thus the fact that there may have been limited participation by SDAG members in the Quadrex-B&R meetings does not suggest that Quadrex reviewed the performance of the SDAG. In any event, as we have already found, Quadrex finding 3.1(a) was not reportable. Findings VIII.80-89, supra.

RII.52. CCANP cites the portions of finding 3.1(g) and 3.1(j) which state that errors in calculations were being approved by design verification more often than they should have been. <sup>16/</sup> CCANP FOF, ¶ III.53. As we have found (Findings VIII.91-94, 156-157, supra) these Quadrex findings did not identify a significant breakdown in the QA program. The four examples of "errors" cited by Quadrex included a calculation which used over-conservative assumptions and thus did not reduce safety margins, a matter which had been previously reported to the NRC, an example that did not involve any error, and a generalized statement that did not cite any basis. Findings VIII.91-92, supra. Moreover, as CCANP recognizes, the Quadrex study manager, Mr. Stanley, testified that he did not believe the number of calculation errors constituted a significant breakdown in the QA program. Tr. 13353-55 (Stanley); CCANP FOF, ¶ III.53. Although CCANP argues that Mr. Stanley's testimony was inconsistent with a 1982 letter he sent to Bechtel, the very portion of the letter cited by CCANP makes clear that the Quadrex concern focused on low productivity, and that Quadrex viewed the errors as affecting obsolete calculations which would be redone in any event. The letter did not state that the errors constituted a breakdown in the QA program. Id., CCANP Exh. 104, at 3. As we have found (Findings VIII.91-94, 156-57, supra) each

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<sup>16/</sup> There is no such statement in finding 3.1(g). Apparently CCANP intended to cite finding 3.1(b).

of the experts who testified on this finding expressed the opinion that it did not constitute a reportable deficiency, and we agree with that testimony.

RII.53. Quadrex finding 3.1(g) states in part that "[a] number of key front-end criteria documents are missing for STP." App. Exh. 60 at 3-9. CCANP cites testimony from Mr. Stanley that the absence of such criteria documents "would be a safety problem (the witness actually said "could" (Tr. 13278-79 (Stanley)) if the architect-engineer did not have strong technical leadership in each of the disciplines...." CCANP FOF, ¶ III.54. (Neither CCANP nor any evidence of record tied either the criteria documents or the strength of technical leadership to an Appendix B Criterion. See Findings VIII.137-140). CCANP cites various pages of the Quadrex Report as evidence of a lack of such strong leadership. Id. Even though CCANP's characterization of the Quadrex findings tends to exaggerate them, none of the Quadrex findings, even as characterized by CCANP, provides significant support for CCANP's sweeping conclusion of inadequate leadership.

RII.54. CCANP also argues that "[the] absence of such leadership and the absence of necessary technical guidance were a longstanding condition adverse to safety which violated Criterion XVI and should have been reported to the NRC pursuant to 50.55(e)(1)(i)." Id. Even if the weakness in B&R technical leadership were assumed, this argument would fail for a number of reasons. First, Mr. Stanley did not suggest that he would

generally view weaknesses in technical leadership as a violation of Appendix B, and did not testify that there were weaknesses in B&R technical leadership to an extent that would constitute a significant breakdown in the QA Program. Second, although CCANP cites Criterion XVI, apparently referring to the requirement to correct "conditions adverse to quality," it provides no basis for concluding that the statements in the Quadrex Report related to "conditions adverse to quality" as that term is intended by Criterion XVI ("such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances. . ."), or otherwise amounted to a significant QA breakdown. Third, CCANP does not show that there was a significant breakdown or that an adverse affect on the safety of operations could have resulted from this alleged weakness in technical leadership. In particular, the Quadrex statements CCANP cites are not in any way tied either by CCANP or by logic to the three criteria documents (In-Service Inspection, Environmental Qualification and Safety-Related Classification) that Quadrex found missing in finding 3.1(g). Finally, every expert witness who testified on this point expressed the view that this finding did not identify a significant breakdown in the QA Program and was not a reportable deficiency. Bernsen/Lopez, ff. Tr. 13441, at 66-68; Taylor, ff. Tr. 14846, at 27-28. Accordingly, the Board has concluded that finding 3.1.(g) was not reportable. See, Findings VIII.136-141, supra.

RII.55. The last Quadrex generic finding addressed by CCANP is finding 3.1(i). CCANP FOF, ¶ III.55. CCANP relies solely on the testimony of Mr. Robertson, despite the fact that Mr. Robertson concluded that the Quadrex finding only indicated deficiencies in the productivity of the B&R nuclear analysis group, and was not reportable. Tr. 14638-41. (Robertson). CCANP urges the Board to rely on Mr. Robertson's initial reaction that the finding intended to suggest quality deficiencies, but to reject his ultimate conclusion that only productivity was involved. CCANP FOF, ¶ III.55. CCANP contends that "[a]n architect-engineer for a nuclear power plant having virtually no nuclear analysis capability is simply unacceptable," and therefore finding 3.1(i) was reportable. CCANP FOF, ¶ III.55. However, the record shows that HL&P gave careful attention to this generic finding on May 7-8, 1981. Tr. 14643-47 (Robertson). Mr. Robertson explained that conservative nuclear analyses are completed early in project design and later revised with less conservative interim reanalyses. Not having these interim reanalyses would result in the original conservatisms remaining in the design and would also delay until the final design analyses, the discovery of any errors in the original analyses. He testified that such interim analyses are not required by NRC. Tr. 14644-47 (Robertson). His review convinced him that there were acceptable B&R calculations and that the Quadrex findings related to the inadequate productivity, and not a reportable condition. Tr. 14639-41 (Robertson). See also Findings

VIII.147-48. In disputing Mr. Robertson's conclusion, CCANP first argues that B&R's lack of an adequate nuclear analysis group violated Appendix B; it then admits that sub-contracting such work is acceptable, but asserts that the A/E must have the capability for ensuring the adequacy of the subcontracted work. CCANP FOF, at ¶III.55. Although CCANP thereby implies that B&R lacked such capability, it cites no evidence to that effect, nor is there any in this record. The other experts who testified on this point agreed with Mr. Robertson that finding 3.1(i) was not reportable. Bernsen/Lopez, ff. Tr. 13441, at 79-85; Taylor, ff. Tr. 14846, at 31-33. Based on this record, we have found that finding 3.1(i) was not reportable. Findings VIII. 146-151, supra.

#### Discipline Findings

RII.56. Although, largely at CCANP's instance, we designated 16 discipline findings for consideration in the hearing, CCANP only proposed findings on eight of them. CCANP FOF, at ¶¶ III.56-66. Its proposed findings focus almost exclusively on the testimony of one witness, Mr. Goldberg, and ignore the vast bulk of the evidence on the reportability of these findings. Id. We have reviewed the record on each of the Quadrex discipline findings at issue and made detailed findings of fact regarding the application of Section 50.55(e) to each one. 17/ Findings VIII.7-69, supra. We consider below the CCANP

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17/ In its proposed findings on Quadrex finding 4.6.2.1(n) the  
(footnote continued)



arguments regarding the discipline findings. However, we will not address CCANP's unsupported and general allegation that the Applicants' testimony on the reportability of these findings "is characterized by a web of deception based on false and misleading testimony." CCANP FOF, at ¶ III.56. The Commission regulations require that proposed findings be presented with "exact citations to the transcript of record and exhibits in support of each proposed finding." 10 C.F.R. §2.754 (1985). Broad and baseless charges have no place in proposed findings, nor indeed, in any pleadings before this agency.

Finding 4.1.2.1(b)

RII.57. The first discipline finding addressed by CCANP is 4.1.2.1(b). CCANP FOF, ¶¶ III.57-58. CCANP attempts to demonstrate an error or vacillation in the testimony of Mr.

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(footnote continued from previous page)

Staff recognizes that HL&P had information on May 8, 1981, that was not considered by Mr. Taylor in reaching his conclusion that this finding was potentially reportable. Staff FOF, ¶ C.36. In its discussion of the finding however, the Staff apparently overlooked two facts (1) Mr. Taylor testified that the "error" he found potentially reportable was the portion of Question N-17 addressed in Quadrex finding 4.6.2.1(m), not 4.6.2.1(n) (see Tr. 15098 (Taylor)), and (2) that while Mr. Taylor believed that the item in Question N-17 was reported on October 19, 1982 (see Staff FOF, ¶ C.33 citing Taylor, ff. Tr. 14846, at 44-45), it was not. The October 19, 1982, HL&P Section 50.55(e) report resulted from a reanalysis of the ECP based on design changes that occurred after the Quadrex Report was issued and was not based on the information provided in the Quadrex Report. Tr. 11470, 12241-43 (Goldberg); Tr. 13473-75 (Lopez). Notwithstanding these factual discrepancies, Mr. Taylor concluded that his determination of potentially reportable was judgmental and would not, in any event reflect on Applicants' character and competence. Taylor, ff. Tr. 14846, at 45-46. We agree.

Goldberg on Quadrex finding 4.1.2.1(b). CCANP FOF, ¶ 58. We find no inconsistency. Quadrex finding 4.1.2.1(b) relates to the Civil/Structural discipline, and concerns the design of internal missile barriers. Mr. Goldberg explained that the finding thus related to work which is performed late in the design process, after equipment layout is complete and the potential sources and targets of missiles identified. Tr. 11795 (Goldberg). He explained that to the extent that development of equipment specifications to minimize the potential for missile generation may be considered design associated with missile protection, the Quadrex Report was not intended to address such work. Tr. 11793-95 (Goldberg). Since the finding addressed Civil/Structural work, it would not be viewed as addressing equipment specifications. Moreover, Mr. Goldberg's conclusion that the work addressed by this finding had not commenced was confirmed by the testimony of Dr. Sumpter (Sumpter (supplemental), ff. Tr. 15357, at 3-4; Tr. 15367-68 (Sumpter)) as well as the Bechtel witnesses (Bernsen/Lopez, ff. Tr. 13441, at 91-92; Tr. 14043-48 (Bernsen, Lopez)). The testimony of Mr. Goldberg, Dr. Sumpter, Dr. Bernsen and Mr. Lopez is also confirmed by the Bechtel Task Force Report, which states

"B&R indicated . . . they were waiting for the completion of a safety systems hazard analysis which was to identify potential missiles. The Civil/Structural group was then to implement the referenced Technical Reference Document (TRD). The B&R approach to the potential missile problem is reasonable and consistent with current practice, including the timing of criteria implementation."

App. Exh. 63 at B-2. Accordingly, the Board finds that Quadrex finding 4.1.2.1(b) was not reportable (see Findings VIII.7-11, supra) and that Mr. Goldberg's testimony in this regard was credible and persuasive.

RII.58. CCANP argues that B&R agreed with Quadrex finding 4.1.2.1(b), regarding protection from internally generated missiles (see Finding VIII.7, supra), except that it "did not believe the Civil/Structural discipline was required to do a reasonableness analysis." CCANP FOF, at ¶ III.57. CCANP also states that the "Civil/Structural discipline did respond that the criteria for internal missiles were being implemented in conjunction with the hazards analysis program," citing App. Exh. 62. CCANP FOF, ¶ III.57. B&R actually stated that "Criteria for development of internal missile parameters is now being implemented under a controlled program in conjunction with the hazards analyses program." We do not read implementation of "criteria for development of internal missile parameters" (which refers to identification of sources of internal missiles) as the equivalent of "implementation of criteria for internal missiles" (which appears to refer to missile protection). As paraphrased by CCANP one would infer that design of internal missile barriers had commenced, however, B&R's response (App. Exh. 62 at enclosures) implies the opposite. Indeed, the sentence in the B&R response that CCANP does not reference states that "[c]urrently, no data on internal missiles have [sic] been received." App. Exh. 62, Encl. 1 at 4.1.2.1(b). CCANP speculates that this

Quadrex finding resulted from B&R's inability to locate records requested by Quadrex CCANP FOF, ¶III.57. There is no basis for this assertion and simply no indication in the record that B&R had done any Civil/Structural internal missile protection design work.

Finding 4.3.2.1(a)

RII.59. Quadrex Finding 4.3.2.1(a) relates to compliance with the single failure criterion in the design of a common instrument air line (see Finding VIII.13). The evidence showed, and CCANP apparently agrees, that this design feature had not been released for construction and that this finding was not reportable under Subsection 50.55(e)(1)(ii). Finding VIII.13-14; CCANP FOF, ¶ III.59. Mr. Goldberg testified that the finding did not suggest to him the existence of a systemic deficiency that would be reportable under Subsection 50.55(e)(1)(i). Goldberg, ff. Tr. 11491, at 39-40. CCANP argues that in its finding Quadrex expressed concern that the existence of such a deficiency "in concert with the B&R response to other single failure criteria questions suggests that B&R is not sufficiently experienced in the performance of a Failure Mode and Effects Analysis that crosses discipline lines. . . ." CCANP FOF, ¶ III.59. CCANP also notes that the Bechtel Task Force, which in other contexts CCANP seeks to denigrate (e.g., CCANP FOF, ¶ III.209), recommended a review to determine if there was a generic design error. CCANP FOF, ¶ III.59; See App. Exh. 63 at

B-27. We find no inconsistency. Mr. Goldberg's testimony accurately quoted the entire Quadrex finding and expressed Mr. Goldberg's view that the information provided by Quadrex did not suggest to him a systemic deficiency. This is not unreasonable. The Quadrex finding identifies only a single design error. Although it refers to "the B&R response to other single failure criterion questions," the only questions referenced by Quadrex identify only this one design error. CCANP has provided no basis for equating the Quadrex question about B&R's level of experience with a breakdown in the QA program. CCANP FOF, ¶ III.59. Quadrex made no such connection (App. Exh. 60 at 4-21) and although the Bechtel Task Force suggested that a review be performed, once it learned that the common instrument air line design was not released for construction, Bechtel agreed that the finding was not reportable. Bernsen/Lopez, ff. Tr. 13441, at 93-94. The NRC Staff reviewed Quadrex Finding 4.3.2.1(a) and concluded that it did not constitute a significant breakdown in the QA program. Taylor, ff. Tr. 14846, at 19-21. Dr. Bernsen and Mr. Lopez expressed the same opinion. Bernsen/Lopez, ff. Tr. 13441, at 93-94. Moreover, the review conducted by Bechtel confirmed that there was no generic deficiency. Id. CCANP's argument does not specify any QA requirement it claims was violated (CCANP FOF, ¶ III.59) and none is apparent to us. We agree with Mr. Goldberg's opinion that the Quadrex finding was

not reportable under Subsection 50.55(e)(1)(i) and find no basis for CCANP's claim that Mr. Goldberg was less than candid in his testimony regarding this finding.

Finding 4.3.2.1(d)

RII.60. CCANP argues that Quadrex Finding 4.3.2.1(d) finds a deficiency and suggests a remedy, but that Mr. Goldberg's testimony ignored the deficiencies, and focused only on the suggested remedy. CCANP FOF, ¶ III.60. In fact, neither the finding nor the questions cited in support of it (E-1, E-8 and E-19) identify any deficiency in design or design processes. In its assessment of E-1, Quadrex states " . . . the limited examples reviewed were satisfactory." Similarly in E-8, Quadrex found that the "B&R response adequately describes" various design features, and in E-19 Quadrex stated in part that the "B&R Response appears adequate. . . ." Although Quadrex did point out in both E-8 and E-19 that B&R had not shown an analysis of failure modes, the testimony dealt directly with such analyses of compliance with the single failure and separations criteria (since that is the subject of Quadrex finding 4.3.2.1(d)). The evidence shows that the type of documentation sought by Quadrex is not a regulatory requirement and that Quadrex Finding 4.3.2.1(d) was not reportable. Taylor, ff. Tr. 14846, at 40-41; Bernsen/Lopez, ff. Tr. 13441, at 95-96; Goldberg, ff. Tr. 11491, at 40; App. Exh. 63 at B-30; Staff Exh. 136 at 411; App. Exh. 77, Second enclosure at 2. CCANP's arguments do not affect our resolution of this matter in Findings VIII. 18-20, supra.



Finding 4.3.2.1(n)

RII.61. CCANP claims that Quadrex Finding 4.3.2.1(n) shows B&R's "inability to interpret NRC regulatory guides and IEEE standards sufficiently to resolve a quality related question . . ." and that this indicated a lack of the skills necessary to design and engineer a nuclear plant. CCANP FOF,

¶ III.61. However, the record only shows that B&R was late in making choices among isolation devices (Tr. 13157-59 (Stanley)); there is no basis for CCANP's charge that B&R could not interpret the regulatory requirements. CCANP's claim is based on a misreading of the record and on misunderstanding of NRC requirements. Although CCANP argues that NRC implicitly requires some unstated level of competence for engineers and that B&R did not meet the required level (whatever it might be), we have been shown not a single instance of engineering work performed by an unqualified individual. In this finding, Quadrex was apparently concerned primarily with the timeliness of B&R's work, not its quality. E.g., Tr. 13157-59 (Stanley).

RII.62. Even more off the mark is CCANP's claim that Quadrex Finding 4.3.2.1(n) was reportable under Subsection 50.55(e)(1)(ii). CCANP FOF, ¶III.62. This Quadrex finding does not identify a single instance of design error (see Tr. 13158-59 (Stanley)), so Subsection 50.55(e)(1)(ii) could not be applicable. Moreover, as explained by Mr. Stanley, the procurement specifications did require compliance with applicable requirements. The Quadrex concern was that B&R had not finalized its

position on the selection of types of isolation devices for various applications and until it did so, and obtained regulatory approval, there was a risk that changes would become necessary later in design. Mr. Stanley explained that it is not unusual for procurement specifications to be issued without such details and emphasized that there would be various checks and verifications of the isolation device application at later stages in Project design. Tr. 13153 (Stanley). Each expert who testified on Quadrex Finding 4.3.2.1(n) concluded that it was not reportable. Taylor, ff. Tr. 14846, at 38-39; Bernsen/Lopez, ff. Tr. 13441, at 96; Goldberg, ff. Tr. 11491, at 41; Tr. 12027-29 (Goldberg). See Findings VIII.21-25, supra.

RII.63. As a final argument on Quadrex Finding 4.3.2.1(n), CCANP alleges that this finding is part of evidence "of a systematic failure within the electrical discipline to provide adequate guidance to vendors." CCANP FOF, ¶ III.63. CCANP's argument improperly seeks to put in issue several Quadrex Findings (Findings 4.3.2.1(e) and 4.3.2.1(j)) which were not identified in our prehearing orders, not the subject of prefiled testimony and not the subject of any cross-examination. Cf. Niagara Mohawk Power Corp. (Nine Mile Point Nuclear Station, Unit 2), ALAB-264, 1 NRC 34', 354 (1975). In any event, the basic issues addressed by CCANP's argument are considered in the context of Quadrex generic Finding 3.1(b). See Findings VIII. 98-101, VIII.104-105, supra. As we found there, Appendix B permits a licensee to perform safety-related design work by

itself or to delegate it to a qualified contractor, subcontractor or vendor. Cf. 10 C.F.R. Part 50, App. B, Criteria I, III, IV, VII. CCANP's claim that there was "a potential for quality assurance problems" (CCANP FOF, ¶ III.63) falls far short of even asserting that there was a significant breakdown in the QA program for STP. A "potential" for such problems exists regardless of who is assigned the work. Accordingly, CCANP's arguments do not address the criteria of 10 C.F.R. § 50.55(e) and do not affect our conclusions that Quadrex Findings 4.3.2.1(n) and 3.1(b) were not reportable. Findings VIII.21-25, 90-105, supra.

Finding 4.7.3.1(k)

RII.64. CCANP argues that Quadrex Finding 4.7.3.1(k) was reportable because "B&R . . . intended to use a non-conservative method of calculating [certain] safety related loads," and that such intent constituted "a significant quality assurance breakdown reportable pursuant to 50.55(e)(1)(i)." CCANP FOF, ¶ III.64. As in most of its other reportability arguments, CCANP does not explain how this technical error constituted a significant breakdown in the QA program; no provisions of Appendix B are cited at all. Mr. Goldberg explained that this finding involved a technical error in B&R's plans for design work that had not yet been completed and did not represent a QA breakdown. Goldberg ff. Tr. 11491, at 44; Tr. 12254-55, 12258-60 (Goldberg). Mr. Taylor, being unsure whether

this design had been released for construction, testified that the finding probably should have been reported "as a 'potential'." Taylor, ff. Tr. 14846, at 48-49. Nevertheless, in response to the question of whether this Quadrex finding represented a violation of Appendix B, his response was an unequivocal "no," which he clearly explained and justified. Id. Similarly, Dr. Bernsen and Mr. Lopez testified that, in their view, this finding did not represent a QA breakdown. Bernsen/Lopez, ff. Tr. 13441, at 100. CCANP has presented no basis to reach any other conclusion.

Finding 4.8.2.1(b)

R11.65. Quadrex Finding 4.8.2.1.(b) contains two specific concerns regarding B&R ALARA design. App. Exh. 60 at 4-86; Finding VIII.50, supra. The first statement is that there were no procedures defining the minimum qualifications of ALARA reviewers, and the second is that there was limited evidence of proper follow-up to verify incorporation of ALARA specified designs. App. Exh. 60 at 4-86. Although CCANP claims that "Mr. Goldberg's testimony does not directly address the actual finding," (CCANP FOF, ¶ III.65) in fact, his testimony addressed both statements explicitly. Goldberg, ff. Tr. 11491, at 45-46. As to the first Quadrex statement, Mr. Goldberg explained that the ALARA reviewers were selected using the same procedure applicable to other engineering personnel. Id. As CCANP clearly understood (Tr. 12265), this testimony showed that the procedure

suggested by Quadrex is not needed. As to the second Quadrex statement, Mr. Goldberg explained the record keeping system used to create evidence of incorporation of ALARA reviewer comments, and expressed the opinion that the system was adequate. Goldberg, ff. Tr. 11491, at 45-46. See ¶ RII.7, supra. Mr. Goldberg's testimony was confirmed by the testimony of others, testimony CCANP has not addressed. Mr. Taylor explained that the procedures recommended by Quadrex are not required and failure to have had such procedures was not reportable. Taylor, ff. Tr. 14846, at 50-52. Similarly, Dr. Bernsen and Mr. Lopez explained that, even if Appendix B were applied to such ALARA activities, B&R's procedures satisfied Appendix B, and Quadrex Finding 4.8.2.1(b) would not have been reportable. Bernsen/Lopez, ff. Tr. 12441, at 101-103. CCANP ignores this testimony and premises its argument to the contrary on a partial quotation from a sentence in the Quadrex assessment of B&R's response to question R-1 ("the reviews performed by B&R . . . have not been adequate"). CCANP FOF, ¶ III.65. The balance of Quadrex's sentence (i.e., "Based on the above discussion . . .") makes clear that the basis for the Quadrex criticism was adequately reflected in the wording of the finding, and Quadrex was not relying on any instance of deficient design. App. Exh. 60, at Question R-1. As we discuss in Findings VIII.70-77, supra, the record shows clearly that Quadrex did not consider its criticisms of the B&R ALARA program to have identified a significant QA breakdown, and CCANP has identified nothing that would suggest a

different conclusion. See ¶ RII.7. One additional point should be made; CCANP quotes a portion of Mr. Goldberg's testimony and suggests, without explanation, that it reflected a misunderstanding of Section 50.55(e). CCANP FOF, ¶ III.65. We find no basis for such criticism. Other expert witnesses testified that ALARA programs generally are not considered to be subject to Appendix B, and thus deficiencies would not be reportable under Subsection 50.55(e)(1)(i). Cf. Bernsen/Lopez, ff. Tr. 13441, at 101-102; Tr. 14493-97 (Frazar). Mr. Goldberg testified that he would consider as possibly reportable a systematic failure to comply with Project ALARA procedures if the result was failure to achieve the purposes of the ALARA program. Tr. 12271-72 (Goldberg). Mr. Wisenburg also expressed the view that there may be some circumstances in which ALARA deficiencies could create a reportable concern. Tr. 14549 (Wisenburg). Mr. Goldberg's testimony, in effect, defines a significant breakdown in the program and reflects an intent to report in a doubtful case. The negative implication CCANP urges is baseless. We find that Mr. Goldberg's testimony reflects an intent to be fully open with the NRC and that it reflects positively on HL&P's character.

Finding 4.8.2.1(g)

RII.66. CCANP argues that Quadrex Finding 4.8.2.1(g) was reportable under both Subsection 50.55(e)(1)(i) and (ii) (CCANP FOF, ¶ III.66), however, it points to no evidence that there was any deficient design. Instead it cites B&R's



explanation of its conclusion that this Quadrex finding was not reportable. Id. B&R stated "[t]he block wall criteria impacts maintenance activities and ALARA not the safe operation of the plant and is therefore, not reportable." App. Exh. 62, encl. 1 at Item number: 4.8.2.1(g). CCANP claims this statement contradicts Mr. Goldberg's testimony. We find no contradiction. Mr. Goldberg explained that the aspect of the design work that had not yet been accomplished concerned the shielding considerations applicable to removal of concrete block walls for equipment maintenance and repair operations. Tr. 12274-84 (Goldberg). The plain language of the Quadrex finding and the B&R response indicate that the criteria sought by Quadrex were under development, and contain no suggestion that design work was being performed in the absence of necessary information. Mr. Taylor, Dr. Bernsen, and Mr. Lopez also expressed the view that this finding was not reportable. Taylor, ff. Tr. 14846, at 50-52; Bernsen/Lopez, ff. Tr. 13441, at 106-07. CCANP has not identified any contrary evidence.

Finding 4.8.2.1(d)

RII.67. On May 8, 1981, HL&P notified the NRC of a potentially reportable item concerning the safety classification and verification of radiological shielding calculations. Goldberg, ff. Tr. 11491, at 34-36. Subsequently, HL&P wrote to NRC (with copies to the Board and parties), advising that it had determined that the item was not reportable. Id.; App. Exh. 75.

CCANP now questions that position based on its interpretation of a document which, at CCANP's urging, we decided not to admit into evidence (See Tr. 13470) CCANP FOF, ¶¶ III.29,30. Obviously CCANP's reliance on extra-record materials is improper (Cf. Tennessee Valley Authority (Hartsville Nuclear Plant, Units 1A, 2A, 1B and 2B), ALAB 463, 7 NRC 341, 351-52 (1978)) and, in these circumstances, ironic. In any event, however, there is no basis for CCANP's position, regardless of the rejected exhibit. As CCANP admits (CCANP FOF, ¶ III.29), HL&P's determination that this item was not reportable was premised on its finding that (1) shielding calculations are generally treated in the industry as not safety-related, and (2) B&R's system for checking and reviewing its shielding calculations was equivalent to verification. Goldberg, ff. Tr. 11491, at 36; CCANP Exh. 132. CCANP's citation to the rejected exhibit for the proposition that shielding of the control room may be safety-related does not alter that conclusion. In fact, Mr. Goldberg testified that on May 8, 1981, B&R advised that some shielding calculations might be safety-related, but that Quadrex Finding 4.8.2.1(d) was nevertheless not reportable. 18/ Goldberg, ff. Tr. 11491, at 35-36. See also App. Exh. 62, Encl. 1 at item number 4.8.2.1(d).

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18/ CCANP's charge that the Bechtel Task Force withheld its advice to avoid embarrassing HL&P (CCANP FOF, ¶ III.30) is outrageous, and founded solely on CCANP's misreading of the Task Force Report. The advice regarding finding 4.8.2.1(d) in EN619 (App. Exh. 64) which CCANP could not find in the Task Force Report is contained at page B-153 of the Task Force Report (not B-152). App. Exh. 63 at B-152, B-153. The Task Force properly concluded the finding to be not reportable. Id.

There is no evidence suggesting that where calculations were checked in a manner essentially equivalent to verification, "a significant breakdown in the QA program" nevertheless existed. Thus CCANP's position is unsupported and, in any event, there is no basis for claims that HL&P's handling of the finding reflects adversely on its character or competence. See Findings VIII. 57-59, supra.

Quadrex Report as a Whole

RII.68. Much of CCANP's proposed findings are devoted to its argument that Applicants were required by 10 C.F.R. § 50.55(e) to provide the entire Quadrex Report to the NRC Staff. CCANP FOF, ¶ II.16-17, 21; III.73-99, 208-11. We consider the reportability of the Quadrex Report as a whole in ¶ II.28 and Findings VIII.159-177, supra. In this section we discuss the various CCANP arguments and explain why we have rejected them.

RII.69. At the outset of its discussion of this issue, CCANP argues that Criterion VII of Appendix B applies to the relationship of the licensee and its architect-engineer. CCANP FOF, ¶ III.73. As a substantive matter this argument is not material to our discussion. Criterion VII (entitled Control of Purchased Material, Equipment and Services), provides in part that "[m]easures shall be established to assure that purchased material, equipment, and services . . . conform to the procurement documents." 10 C.F.R. Part 50, App. B, Criterion VII. Criterion VII does not specify those measures, and it is apparent

that consideration of the adequacy of the measures used to control the work of the A-E would look to Appendix B requirements in general as the standards for such measures. See Tr. 14912-14 (Johnson, Taylor, Constable). Thus the only question presented by CCANP's argument is the wholly academic question of whether the Appendix B criteria apply directly to the A-E, or apply by virtue of the implicit incorporation of Appendix B requirements in Criterion VII. Clearly, we look to various criteria of Appendix B, not just Criterion VII to judge the adequacy of the A-E's QA program. Id. We pause, however, to comment on CCANP's argument on this point. In the course of the hearing CCANP asked several witnesses whether Criterion VII applies to HL&P's control of B&R's work on STP. The experts expressed somewhat different views on the matter. CCANP cited only the testimony that tended to agree with its position. CCANP FOF, ¶ III.73. It improperly ignored contrary evidence elicited in its own cross-examination. Tr. 14912-14 (Johnson, Taylor, Constable). See also, Tr. 14779-80 (Robertson).

R11.70. CCANP argues that the NRC reaction to the Quadrex Report, particularly NRC tracking of the resolution of the Quadrex findings, the discussion of Mr. Collins with HL&P on September 8, 1981 and the initial testimony to Congress regarding the Quadrex Report, indicates that the Report "should have been provided to the Staff." CCANP FOF, ¶¶ III.74-75, 97-99. In making these arguments CCANP does not argue that any of these reactions connects the Quadrex Report to the reporting criteria

of 10 C.F.R. § 50.55(e) or any other regulatory requirement. CCANP argues that the NRC commitment of resources and the Staff's classification of most of the Quadrex findings as "Safety-Significant" are clear indications that the NRC should have been provided the Report. CCANP FOF, ¶ III.75. It also argues that a statement to Congress made by Mr. Dircks and the testimony of Mr. Collins regarding that statement provide such indication. CCANP FOF, ¶¶ III.98-99. It also cites Mr. Collins' testimony regarding the September 8, 1981 meeting. None of these arguments suggests that the Quadrex Report was reportable under Section 50.55(e). As we have described in Finding VII.57, supra, the initial Staff reaction to the Quadrex Report was that it appeared that it might identify significant deficiencies. See Johnson and Constable, ff. Tr. 14846, at 4. However, the Staff, through its subsequent reviews (e.g., Staff Exh. 136) determined that the Quadrex Report did not show the existence of a significant QA breakdown and was not reportable. Johnson and Constable, ff. Tr. 14846, at 4-5; Taylor, ff. Tr. 14846, at 52-54; Tr. 15347-48 (Collins). The Staff's current position, which is soundly based on careful reviews and comprehensive analysis, is far more persuasive than its initial reactions to a complex technical document. Since the Quadrex Report was not reportable, CCANP's charge that HL&P never provided a copy to Region IV (CCANP FOF, ¶ III.97) is irrelevant. In any event, the record is clear that HL&P did provide the report to NRC and the Region IV received a copy. CCANP Exh. 138, enclosure at 2.

RII.71. CCANP provided a series of "reasons related to Appendix B" that it contends demonstrate that the Quadrex Report should have been provided to the NRC Staff pursuant to Section 50.55(e). CCANP FOF, ¶¶ III.76-84. We do not discuss these arguments in detail because they are devoid of any reference to the record, involve numerous erroneous interpretations of NRC requirements 19/ and mischaracterizations of Quadrex findings, and do not sway us from our basic position (¶ II.28, supra) that the reportability of the Quadrex Report turns on the factual question of whether the Report taken as a whole indicated the existence of an overall breakdown in the QA program. As we have seen, the record contains overwhelming evidence that the Report

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19/ The following are a few examples of the erroneous interpretations of Appendix B that permeate CCANP's proposed findings. CCANP FOF, ¶ II.9 claims "achieving accessibility for inservice inspection, maintenance, and repair" is required by Criterion III. Criterion III requires only that such items be controlled, not that accessibility be achieved. NRC accessibility requirements are provided in 10 C.F.R. § 50.55a(g). See Tr. 10204-06 (Frazar). CCANP FOF, ¶ II.9 claims "A breakdown in a program required by NRC and subject to Appendix B is a significant breakdown ..." and is reportable. Such an interpretation seeks to read the word "significant" and the words "adversely affect the safety of operations" out of section 50.55(e); CCANP FOF, ¶ III.81 argues that "excessive production pressures on engineering is a condition adverse to safety" and violates criterion XVI. Criterion XVI gives as examples of conditions adverse to quality, "failures, malfunctions, deficiencies ... nonconformances". "Production pressure" is not such a condition. CCANP FOF, ¶ III.77 argues that lack of certain design skills in the A/E would violate Criterion II. Under that criterion personnel performing activities affecting quality must have adequate proficiency to produce a safe product; it does not specify the skills an A/E must have in-house. CCANP FOF, ¶ III.179 says "if the quality is not there, then QA is responsible." Obviously, errors affecting quality can occur despite an effective QA program. Cf. Taylor, ff. Tr. 14846, at 8.



did not indicate such a breakdown. Id. We need not pause to examine CCANP's various interpretations of Appendix B because their factual basis is simply not presented or supported in the record. For example, there is simply no evidence that, other than the items reported on May 8, 1981, any of the Quadrex criticisms of B&R engineering, whether taken individually or together, constituted a significant breakdown in the QA program which, if left uncorrected, could adversely affect the safety of operations. No amount of mental gymnastics will substitute for this absence of evidence. The record reflects that many of the Quadrex findings simply reflected Quadrex's view that B&R had not accomplished enough of the design work in the 6-7 years it had been working on the Project; and that a number of others simply identified areas in which improvement might increase efficiency and productivity. Taylor, ff. Tr. 14846, at 52-54; See also Tr. 13157-58, 13353-55 (Stanley); Tr. 12274-75, 12339-40 (Goldberg); Tr. 14638-41 (Robertson). CCANP cites these findings as indications of deficiency and equates, without authority or basis, such deficiencies with QA breakdowns; it then assumes that any such "QA breakdown" would have to be reportable under 10 C.F.R. § 50.55(e)(1)(i) as a significant breakdown in the QA program which, if left uncorrected could adversely affect the safety of operations. The evidence of record, however, demonstrates that the numerous experts who reviewed the Quadrex

Report concluded that the findings (with few exceptions) did not identify QA breakdowns, let alone significant breakdowns, and that the findings were not reportable. E.g. ¶ II.28, supra.

RII.72. In FOF, ¶ III.179, CCANP contrasts the testimony of Mr. Goldberg with that of Dr. Sumpter concerning the purposes of the Quadrex review. It cites Mr. Goldberg's prefiled testimony that in his view the Quadrex Report was not a report on QA (Goldberg, ff. Tr. 11491, at 55) and then alleges that, when questioned about this statement by the Board, he stated that the "Quadrex study did not have as its goal the identification of QA problems or comparing B&R engineering efforts to their licensing commitments" (CCANP FOF, ¶ III.179). CCANP provides no citation for this allegation. The most relevant portion of the record that Applicants could find was at Tr. 12535-36 (Goldberg), where Mr. Goldberg began his response to a Board question by stating: "The report did not have as a goal to evaluate the Brown & Root engineering program in contrast to the licensing commitments on how that program was to be carried out." CCANP contends that such testimony is inconsistent with Dr. Sumpter's statement that Quadrex "always intended to look at the quality of the work" of B&R. (Although CCANP cites Tr. 12389 (CCANP FOF, ¶ III.179), it apparently intended to cite Tr. 12839.) We see no inconsistency. Mr. Goldberg was testifying about programmatic or QA commitments. Compare Stanley, ff. Tr. 13047, at 4. Dr. Sumpter's testimony concerned the technical adequacy of design products. Dr.

Sumpter's testimony is consistent with the fact that the Quadrex review did not have as a goal the identification of weaknesses in the QA program.

R11.73. In FOF, ¶ III.181, CCANP contrasts Mr. Goldberg's testimony with that of Mr. Stanley. The point at issue is the statement in Mr. Goldberg's prefiled testimony that, for the most part, design deficiencies mentioned by Quadrex had been previously identified on the Project and were being resolved. CCANP apparently views that statement as inconsistent with Mr. Stanley's statement that if B&R had already identified a problem Quadrex tried not to duplicate its efforts. We see no inconsistency, and no reason why this topic is not one on which reasonable minds could differ. Even assuming that Quadrex attempted to eliminate identified problems from its review, there is no reason to doubt that its review could still find mainly design deficiencies that had been previously identified on the Project. In fact, although Mr. Goldberg's recollection was not complete, his quick review of the most serious discipline findings identified several in that category. Tr. 11685-88 (Goldberg); see also App. Exh. 62 at 1; Tr. 14708-9 (Robertson). Thus we find Mr. Goldberg's testimony to be both consistent with Mr. Stanley's and truthful.

R11.74. CCANP argues that aside from 10 C.F.R. ¶ 50.55(e), HL&P had other responsibilities to provide the Quadrex Report to NRC Region IV because at a meeting in early 1980 Region IV officials requested to be informed of design

deficiencies that would delay the Project (CCANP FOF, ¶ III.86) and the Region was particularly interested in information related to design issues at STP (CCANP FOF, ¶¶ III.87-90). These arguments are neither relevant nor persuasive. Contention 9, the only Phase II issue addressing HL&P reporting to the NRC Staff, focuses solely on the requirements of 10 C.F.R. § 50.55(e); CCANP arguments which do not address that regulation are not relevant. Moreover, the record reflects that HL&P voluntarily informed the Staff of the Quadrex review (Sells, ff. Tr. 15190, attached statement at 1; Tr. 15229 (Sells)), and when the Region inquired into an area addressed in small part by the Quadrex Report, HL&P volunteered to show the Report to the Region. Tr. 15203-4 (Phillips). As to CCANP's implication that Mr. Goldberg was wrong in stating there was no regulatory requirement to advise the Staff of the Report, the request reflected in I&E Report 80-04 (Staff Exh. 52) was not applicable to Quadrex (since, except as reported, the Quadrex concerns were not "deficiencies," per se), and was not a regulatory "requirement." Moreover, and there is no evidence that Mr. Goldberg was even aware of the request. We also note that much of CCANP's argument is allegedly founded on I&E Reports 81-02 (Staff Exh. 84) and 81-03 (Staff Exh. 85). However, neither report contains any of the statements or information attributed to it by CCANP and we have not found any other basis in the record for CCANP's allegations. See Tr. 15199 (Phillips), in which there is testimony about alleged "holds" on the model, not deficiencies. Moreover, even if there were

support for CCANP's factual assertions, they would not be relevant to the Board's inquiry because a licensee's obligations to report under Section 50.55(e) are in no way dependent upon the subject matter of NRC inspections or the licensee's perceptions of what facts might be of interest to the Staff. In any event, as we have noted, HL&P did advise Mr. Sells of the Quadrex Report and Mr. Sells, in turn, mentioned the Quadrex review to various Region IV personnel. Sells, ff. Tr. 15190, attached Statement at 1; Phillips, ff. Tr. 15192, at 2.

RII.75. CCANP contended that the three matters reported by HL&P on May 8, 1981 "covered six separate findings" and that "[f]or one report to produce six findings potentially reportable under 50.55(e) and for those findings to be of such a significant nature should have led Applicants to turn over the entire report to the NRC." CCANP FOF, ¶ II.16-17. One could quarrel with the premises for CCANP's position. The number of findings covered is a function of writing style and could easily have been greater or fewer; it turned out that the concern regarding shielding calculations was not reportable (RII.67, supra) and a lengthy review of the computer codes found no significant safety deficiencies (App. Exh. 73, Final Report dated October 14, 1983, Attachment 1 at 3). More importantly, however, CCANP's conclusion simply does not follow from those premises. Section 50.55(e) requires a licensee to notify NRC of certain types of deficiencies in design and construction. The issue of whether the regulation required HL&P to provide the Quadrex

Report to the NRC hinges on whether doing so was necessary to provide required information to the NRC. CCANP's argument does not identify any reportable deficiency in design or construction which went unreported as a result of HL&P's decision not to provide the Report to NRC. Moreover, CCANP bases this argument solely on the three matters HL&P did report to the NRC.

Regardless of the ramifications or significance of those three matters, HL&P fulfilled its reporting obligations with respect to them. If any conclusions regarding competence or personnel qualifications could be drawn simply from these deficiencies, then NRC was given the opportunity to draw those conclusions. Moreover, each expert who testified on the issue concluded that the Quadrex Report, taken as a whole (including the three matters actually reported) did not identify an overall breakdown in the QA program and was not reportable. See, e.g. ¶ II.28, supra.

#### Other Reviews of the Quadrex Report

RII.76. In its arguments on the reportability of the Quadrex findings and of the Report itself, CCANP ignores substantial portions of the evidence of record. The NRC Staff witnesses Taylor, Constable, Johnson, and Heishman are not even mentioned by CCANP, although their testimony is highly probative of the issues. Applicants' witnesses Bernsen and Lopez are mentioned only to the limited extent of a brief unsupported and unpersuasive attack on their credibility. CCANP FOF, ¶¶ II. 81, III.217-18. Dr. Bernsen and Mr. Lopez are well qualified and



extremely knowledgeable. Their testimony explained in detail a broad range of technical information and provided help to the Board in understanding the implications of the Quadrex findings and the application of Subsection 50.55(e)(1)(i) to them.

RII.77. The Bechtel Task Force Report (App. Exh. 63), which reviewed all of the Quadrex discipline findings, in part to identify any that might be reportable, is dismissed by CCANP because it (1) was "based on oral information" rather than an assessment of documentation, (2) relied on designs which were changed after the Quadrex Review, (3) is internally inconsistent and (4) does not address the generic findings. CCANP FOF,

¶ III.209. In fact, the Bechtel Task Force not only reviewed the actual Quadrex Report, but also additional information provided by B&R, Quadrex and HL&P. App. Exh. 63 at 4. The fact that the Task Force did not review Project documentation or records does not reflect adversely on its work. Its report clearly reflects the professional judgments of the Task Force on the reportability of the Quadrex findings and is based on the same types of technical information as is reflected in the record and upon which the Board bases its decision. As to the alleged reliance on changed design, the Task Force evaluation of Quadrex findings is rarely founded on disagreement with Quadrex on design details. Certainly CCANP has identified no such instance among the findings at issue in Phase II. With respect to generic findings, no party relied on the Bechtel Task Force Report since it does not address their reportability. CCANP's allegations regarding

the Bechtel Task Force Report are based solely on Quadrex criticisms of a draft of the Bechtel Task Force Report. CCANP FOF, ¶ III.209; CCANP Exh. 104. The record reflects that the Quadrex criticisms of the Bechtel draft report were carefully considered by Bechtel, and that the Task Force Report was modified in response to the comments. App. Exh. 72. Although Quadrex was critical of a number of comments in the draft Bechtel Task Force Report, it did not criticize the Task Force's determinations on reportability (CCANP Exh. 104) and, in any event, CCANP has shown no connection between the Quadrex criticisms and the specific findings at issue in Phase II. Clearly the Task Force Report reflects a detailed review of the Quadrex discipline findings and the fact that the Task Force conclusions were substantially the same as the HL&P conclusions is persuasive evidence that HL&P performed a competent review.

RII.78. The NRC Staff performed two detailed reviews of the Quadrex findings: its 1982 review of the Quadrex Report and Bechtel's disposition of the findings, which was published as NUREG-0948 (Staff Exh. 136), and its subsequent memorandum on the reportability of the findings (App. Exh. 77). In NUREG-0948 the Staff considered reportability as one element of a broader review. The Staff concluded that, other than those reported on May 8, 1985, none of the generic or discipline findings was reportable, and that the Report as a whole was not reportable. Staff Exh. 136, at 19-23, 404-24. CCANP asks us to ignore these Staff conclusions because the Staff "ignored the possibility that

the findings individually and collectively could represent a significant breakdown in quality assurance reportable pursuant to § 50.55(e)(1)(i)" (citing Staff Exh. 136 at 20,23). CCANP FOF, ¶ III.210. In fact, NUREG-0948 does not state that it did not consider breakdowns in QA. To the contrary, it specifically states that the Quadrex Report as a whole was not reportable as a breakdown in QA. Staff Exh. 136 at 23. Although NUREG-0948 is not so specific with respect to its review of the individual Quadrex findings, Staff witnesses testified that NUREG-0948 did evaluate each of the findings to determine if they were reportable as a QA breakdown. Johnson and Constable, ff. Tr. 14846, at 4. In any event, CCANP presents no basis for ignoring the NUREG-0948 findings regarding the application of Subsection 50.55(e)(1)(ii). Finally, CCANP has ignored the Staff review of the Quadrex discipline findings in its August, 1984 Memorandum (App. Exh. 77). That Staff review also confirmed the reportability conclusions reached by HL&P on May 8, 1981. App. Exh. 77 at 8-9 and Enclosure. In an earlier Order (LBP-85-6, 21 NRC 447 (1985)) we expressed concerns regarding the Staff application of Subsection 50.55(e)(1)(i). We were critical of the Staff's interpretation of Subsection 50.55(e)(1)(i) because of its overreliance on the question of whether design had been released for construction. The record has demonstrated that the stage of the design process is not irrelevant to Subsection 50.55(e)(1)(i). In any event, even if the two Staff reviews were flawed in some

respects, the fact that they reached reportability conclusions similar to Applicants' May 8, 1981 decisions constitutes important evidence of Applicants' good faith.

RIII. Contention 10

A. Failure to Provide Quadrex Report to Board

RIII.1. Upon careful consideration of the Phase II record, we concluded that it was now not apparent to us that Applicants had violated any McGuire obligations by not furnishing the Quadrex Report to the Board and the parties in May or June 1981. ¶ III.5 and Finding IX.16, supra. CCANP characterizes Applicants' proposals to that effect as a belated motion to reconsider our February 26, 1985 ruling, accuses Applicants of entering the Phase II hearings with a "hidden agenda," and complains that other parties would be prejudiced by our entertaining such a motion without notice that such an issue would be heard. CCANP FOF, ¶ II.27. Such arguments are not persuasive. Obviously CCANP was aware that the reportability of the Quadrex Report under 10 C.F.R. § 50.55(e) was at issue in Phase II, and that testimony would be introduced both as to the substance and import of the Report (including whether the Report revealed a breakdown in the QA program) and as to the perceptions of the Applicants and the NRC Staff concerning the Report. Although CCANP claims that Contention 10 called for evidence only as to whether the failure to provide the Report to the Board reflected adversely on character and competence and not on

whether the Report was material and relevant to Phase I (CCANP FOF, ¶ II.27), those two questions are inseparable. Whether HL&P can be faulted severely for violating an obligation to provide the Report to the Board is dependent upon whether the obligation was so clear as to be unmistakable, and evidence on that point might well indicate that the obligation was sufficiently cloudy to cause us to reconsider our initial views. As we have explained, in now reaching final conclusions concerning whether any violation of the McGuire obligations reflects adversely on HL&P's character and competence we must take into account the entire record before us (¶ III.3, supra), and no party can claim prejudice on that account.

RIII.2. In its proposed findings the NRC Staff restated its previous position that "the Quadrex Report was relevant and material to the issues addressed in Phase I and should have been provided to the Licensing Board in May of 1981." Staff FOF, ¶ F.3. The only explanation the Staff offers for this position is its quotation from our earlier holding that "[c]onstruction and design QA are not so disparate as to be considered unrelated subjects." Id. at ¶ F.5. Although the Staff recognizes that the record in Phase II contains the testimony of qualified experts distinguishing the Quadrex Report from a report on design QA (Staff FOF, ¶ F.6), it does not explain why it urges that we adhere to our earlier holding. Neither does the Staff identify the Phase I issues to which the Quadrex Report, in its view, was material. The record is

convincing, that the Quadrex Report was primarily focused on engineering efficiency, not QA. Mr. Stanley, who was responsible for managing the Quadrex review and for preparing the Report, testified that Quadrex was not looking at the QA program (Tr. 13094 (Stanley)) and that although it did not see enough B&R engineering work products, those that were completed were "generally technically quite good" (Tr. 13084 (Stanley)). We also have been impressed by the testimony of witnesses for both the Applicants and the Staff (Tr. 11706-08, 12523-26, 12537-38 (Goldberg); Tr. 14638-41 (Robertson); Tr. 15347-49 (Collins)) that although their first impression was that the Quadrex Report identified significant deficiencies, upon careful review they realized that the Quadrex concerns did not reveal a broad scale breakdown in the B&R QA program for design. See Findings VIII.159-165, supra. Similarly, upon our own careful review we now believe that the Quadrex Report, when put in proper context, as it was in the Phase II record, was not of particular significance to the QA performance on the Project, and was not material to the Phase I issues.

RIII.3. In any event, as we have stated, even if we were to adhere to our initial view that the Applicants had violated their McGuire obligations, we would still conclude that such violation did not reflect adversely on HL&P's character and competence. ¶¶ III.6-9, supra. CCANP's proposed findings did not provide any arguments or cite any evidence that would convince us to the contrary. As the Staff points out (Staff FOF,



¶ F.7), CCANP simply claimed that the existence of a conspiracy on the part of senior management to prevent the NRC from learning the substance of the Report demonstrated that the violation of the McGuire obligation reflected adversely on character and competence. CCANP FOF, ¶¶ II.28, III.159. Since we have determined that no such conspiracy, or any other conspiracy, existed (E.g. RII.15-17, 38-45, supra), we find no merit in CCANP's argument.

B. Notification to Board of Replacement of B&R

RIII.4. CCANP would have us find that the Applicants violated their McGuire obligations by not informing us of the review leading to the replacement of B&R before September 24, 1981, because of "the significance of this review and the circumstances surrounding it." CCANP FOF, ¶ II.29. However, CCANP does not explain the basis for its claim that an obligation existed to inform the Board and does not convince us that there was any meaningful information to convey to us before the replacement decision was actually made. See ¶ III.13 and Finding IX.23, supra. CCANP's claim that receipt of such information would have altered our approach to the Phase I hearings and would have delayed them until Applicants had reached a decision is without basis; the issues that were the subject of hearings between June 29, 1981 and September 24, 1981 pertained basically to past performance and had to be heard and decided regardless of whether or not B&R was replaced. See Finding IX.32, supra.

RIII.5. CCANP's second claim that the record "would also have contained significant information which Applicants' silence prevented us from hearing at that time" (CCANP FOF, ¶ II.29) apparently relies on the "history" of B&R's replacement contained in CCANP FOF, ¶¶ III.160-65. However, the basic thrust of those proposed findings, i.e., that Mr. Goldberg had suggested that alternatives to B&R as A-E be explored and that Mr. Jordan chose not to do so until after receiving B&R's production forecasts in late June 1981, is simply not relevant or material to the issues that were before us in Phase I.

RIII.6. In addition, we have reviewed CCANP's specific related proposed findings. We have concluded that CCANP FOF, ¶¶ III.161-63 are not as accurate as our description of the sequence of events leading to Applicants' June 29, 1981 decision to see if there were viable alternatives to B&R as an A-E. See Findings IX.18-23, supra. We are at a loss to understand the import of CCANP FOF, ¶ III.164. Although CCANP attempts to belittle Mr. Jordan's current recollection of personnel and events in the spring of 1981 -- more than 4 years prior to his Phase II testimony -- its individual citations focus on matters of little consequence and generally mischaracterize and distort his testimony. We have now heard Mr. Jordan testify twice -- in 1981 and 1985 -- and we are convinced that his understanding and knowledge are fully commensurate with what we would expect from a chief executive officer with broad company-wide responsibilities; unlike CCANP we would not expect him to be familiar with the type

of information needed by the company official in charge of day-to-day operation of its nuclear program. In any event, none of the matters raised by CCANP in FOF, ¶ III.164 remotely relate to whether we should have been informed of the review taking place relating to B&R. Finally, in FOF, ¶ III.165 CCANP is apparently concerned because Mr. Jordan, rather than Mr. Goldberg, chose the replacement for B&R. See also, Id. at II.79. Although we have often made clear that the decision among replacement proposals was not relevant to our concerns, we should note that we find nothing unusual in the responsibility for such a momentous decision residing in the company's chief executive officer, nor that in deciding between two well-qualified candidates, his choice might differ from that of his vice-president.

RIII.7. CCANP apparently seeks to impeach Mr. Jordan's testimony through a lengthy and convoluted proposed finding (CCANP FOF, ¶ III.192) dealing with the peripheral question of Mr. Newman's participation in the process of removal and replacement of B&R. CCANP appears to be claiming that Mr. Jordan improperly failed to identify Mr. Newman as part of the decision-making team, later "modified his testimony," then failed to identify Mr. Newman as a participant in the meeting on the morning of September 12, 1981. These accusations have been dealt with at length in "Applicants' Response to 'CCANP Motion to Withdraw Motion,' Dated October 29, 1985" (November 4, 1985) and we agree fully with the position there taken by Applicants. In response to questioning, Mr. Jordan first properly identified the

individuals (Messrs. Oprea and Goldberg) who gave him the substantive advice that he needed for his decision. Tr. 11981 (Jordan). He never "modified his testimony" but, upon being asked additional questions, clearly answered that other individuals assisted Messrs. Oprea and Goldberg, and that he did not recall whether they were at that meeting, but that Mr. Newman was one of those who assisted. Tr. 11981-82 (Jordan). The record is undisputed that Mr. Newman was present at the meeting, and Mr. Jordan's testimony is fully consistent with that fact.

RIII.8. In FOF, ¶ III.182, CCANP claims that Mr. Goldberg's pre-filed testimony was incomplete because it did not mention Mr. Newman's involvement in the process of selecting a replacement for B&R. In FOF, ¶ III.206, CCANP argues that Mr. Goldberg's Phase II testimony is inconsistent with his previous testimony before the Public Utility Commission (PUC) of Texas, and that he changed his testimony because of the "controversy" concerning Mr. Newman's role. We fail to see how the two portions of Mr. Goldberg's prefiled testimony cited by CCANP in CCANP FOF, ¶ III.182 were incomplete. He stated that he and Mr. Oprea contacted a number of firms to determine their interest before the Request-for-Proposals was prepared. Goldberg, ff. Tr. 11491, at 56. Nothing in the record indicates that Mr. Newman was involved at that time. Mr. Goldberg's testimony then states that he prepared the Request-for-Proposals, received and evaluated proposals and interviewed each of the companies. Id. at 56. Obviously he was reciting his personal involvement, but

neither suggesting that he was the sole individual involved in these activities nor attempting to identify the individuals who worked with or supported him. Since the question he was answering did not require that type of information, we see nothing incomplete in his answer. As to the repeated canard concerning the alleged inconsistency between Mr. Goldberg's Phase II testimony and his Texas PUC testimony with respect to Mr. Newman's role, we have resolved that matter in Finding IX.33, supra, and see nothing new in CCANP FOF, ¶ III.206 that would cause us to reconsider.

#### IV. Credibility of Applicants' Phase I Testimony

##### A. Failure to Mention Quadrex Report

RIV.1. CCANP asks us to find that Applicants demonstrated a lack of honesty and candor in failing to mention the Quadrex Report or the contemporaneous review of B&R's role at STP in their Phase I testimony. CCANP FOF, ¶ II.32. With respect to the Quadrex Report, CCANP cites portions of the testimony of Mr. Jordan (CCANP FOF, ¶¶ II.33-35, III.167-71) and Mr. Goldberg (CCANP FOF, ¶¶ II.36-37, III.172); and as to the review of B&R's role, it cites testimony of Mr. Oprea, including related testimony of Messrs. Jordan and Goldberg (CCANP FOF, ¶¶ II.38-40, III.173). We have reviewed all of CCANP's citations and they did not influence us to revise our favorable opinion of the credibility of Applicants' witnesses. See ¶¶ III.16-19 and Findings IX.35-48, supra.

RIV.2. In its initial proposed finding on this subject, CCANP suggests that the position of Applicants' witnesses (i.e., that the Report was not mentioned in 1981 because of their perception that it did not relate to the matters at issue in Phase I) is "irrelevant" since the Board had ruled otherwise. CCANP FOF, ¶ III.166. However, even given such ruling, the willfulness of any violation of a McGuire obligation would be a key factor in whether the violation reflects adversely on Applicants' character. Accordingly, we deem our findings concerning Applicants' position to be extremely relevant.

Jordan

RIV.3. With respect to Mr. Jordan's testimony, CCANP first argues that he did not truthfully state his perception of the Quadrex Report (CCANP FOF, ¶¶ II.34, III.167-70, 177, 191), then that, even if he did, his answers to questions in Phase I were still incomplete (CCANP FOF, ¶¶ II.35, III.171). CCANP's arguments consist mainly of speculation attributing improper motives to Mr. Jordan, rather than citation of any evidence in the record. In essence CCANP argues that on the basis of Mr. Goldberg's briefing on May 11, 1981, Mr. Jordan should have known that the Quadrex Report related to QA and could not have believed otherwise. The sole support for that conclusion is Mr. Jordan's testimony that Mr. Goldberg told him that B&R lacked a sufficient number of experienced engineers to do the job. CCANP FOF, ¶¶ II.34, III.168. However, we do not agree that such



information should reasonably have led him -- or anyone else for that matter -- to conclude that the Report revealed the existence, or even the likelihood, of QA problems. Although CCANP states that Mr. Jordan first testified, then "changed his testimony," that Mr. Goldberg informed him that B&R lacked nuclear engineering and design expertise, it is apparent to us that he simply made clear -- practically in the same breath -- that he was referring to an insufficient number of experienced personnel. See Tr. 11933-34, (Jordan). There was no indication that unqualified personnel were performing work. See Tr. 11934-35 (Jordan).

RIV.4. The thrust of CCANP's argument is that Mr. Jordan attempted to portray Mr. Goldberg's briefing as "misleading him" as to the nature of the Report, and that his testimony was intended to "shift the blame" to Mr. Goldberg in the eventuality of an adverse ruling from this Board. CCANP FOF, ¶ II.34. CCANP does not cite, and we have not found, any shred of evidence that Mr. Jordan claimed Mr. Goldberg misled him. To the contrary, Mr. Jordan described the substance of the briefing consistently throughout his testimony and neither hinted nor implied that the substance of the Report had not been properly described to him; and it is apparent that his perception of the Report based on that briefing remains equally valid today. Similarly, we have not been cited to nor have we found any

indications that Mr. Jordan sought to "shift blame" upon Mr. Goldberg for anything. Moreover, we have not found any "blame" that must be imposed on anyone.

RIV.5. CCANP then accuses Mr. Jordan of providing incomplete answers to questions in Phase I, with the deliberate objective of keeping the existence and substance of the Quadrex Report from the Board. CCANP FOF, ¶¶ II.35, III.171. Mr. Jordan fully explained why he did not mention the Report in testimony segments about which we inquired in our February 26, 1985 Memorandum and Order (see Findings IX.38.a-d, supra), and CCANP does not dispute those answers. However, it argues that he gave conflicting testimony as to why he did not mention the Report in portions of his Phase I testimony discussing a report from Gibbs & Hill. CCANP FOF, ¶¶ II.35, III.171, 193 (referring to Tr. 12138-41, 12196-97 (Jordan)). In addition to our discussion of that testimony at Finding IX.38.e, supra, we have reexamined Mr. Jordan's Phase II testimony and the relevant Phase I transcript and see no conflict. Although CCANP states that Mr. Jordan "altered" his testimony (CCANP FOF, ¶ III.171), it is apparent that Mr. Jordan simply clarified his meaning in the course of a four-sentence answer. CCANP then quotes Mr. Jordan's Phase II testimony distinguishing the Quadrex Report from the Gibbs & Hill report, as if it somehow supported CCANP's position that the Quadrex Report should also have been mentioned at that point in Phase I. To us, Mr. Jordan's distinction between the Gibbs & Hill report and the Quadrex Report is clear. From the

examination of Mr. Jordan on May 14, 1981, it is apparent that Gibbs & Hill was commissioned by the STP Management Committee to do a broad study of the overall status of the STP and whether schedule and cost estimates were achievable in view of a number of factors, including the available labor force and its productivity. See, particularly, Tr. 1247-48 (Jordan). Even without additional information concerning the Gibbs & Hill Report, it is evident that Mr. Jordan would reasonably view its purpose and content as quite different from the Quadrex Report and we see no reason why he should have mentioned the Quadrex Report in 1981 when answering explicit questions asked about the Gibbs & Hill report.

Goldberg

RIV.6. CCANP alleges that there are numerous places in the Phase I transcript where Mr. Goldberg should have mentioned the Quadrex Report and that he deliberately avoided doing so as part of his scheme to obstruct the NRC regulatory process. CCANP FOF, ¶ II.37. However, in support of this serious accusation, CCANP cites a single portion of the Phase I record (Tr. 2386-2409) in its proposed findings. CCANP FOF, ¶ III.172. Within that portion of the record, CCANP explicitly refers to three pages. First, it complains that at Tr. 2391, Mr. Goldberg testified about B&R "becoming very sensitive" to the proper implementation of design criteria but did not mention the source of that sensitivity. CCANP implies that the Quadrex

Report was that source but nothing in the record so indicates, and CCANP did not inquire on that point when Mr. Goldberg testified during Phase II. Moreover, nothing in that question and answer in 1981 would have called for identification of the source of the sensitivity. Next, CCANP complains that Mr. Goldberg mentioned "engineering reviews" at Tr. 2404 without identifying the Quadrex Report. Mr. Goldberg, in answering a broad question relating to management of design and engineering and construction on the Project was referring to numerous cases where problems had been identified "by an engineering review and observation or . . . by a quality assurance review and observation." Tr. 2404 (Goldberg). It would not have been logical for Mr. Goldberg, in that connection, to identify all engineering and quality assurance reviews and observations that have identified problems in those broad areas. Finally, CCANP caustically remarks that Mr. Goldberg's answer to a question concerning "principal areas," where he has found B&R design lacking, occupied only one page (Tr. 2405-06). This portion of the transcript was the same as one we identified in our February 26 Memorandum and Order. Mr. Goldberg explained his answer at length in his prefiled testimony, CCANP did not question him further during the Phase II hearings, and we are fully satisfied with his response. See Finding IX.44.d, supra. Thus, CCANP has failed to raise any significant question concerning the credibility of Mr. Goldberg's Phase I testimony.

B. Failure to Mention Review of B&R's role as A-E

RIV.7. In asking us to find that Applicants' witnesses gave false, misleading or incomplete testimony during Phase I concerning the review of B&R's role as A-E, CCANP's proposed findings discuss a single piece of Phase I testimony, i.e., Mr. Oprea's testimony on June 2, 1981, that he had not had any discussions concerning the "removal of Brown & Root" after the Show Cause Order. CCANP FOF, ¶¶ II.38-40, III.173. The facts that are relevant to CCANP's accusation are undisputed. At the Phase I hearings in June of 1982, Mr. Goldberg informed us that starting in January of 1981 he had suggested to HL&P management on several occasions that HL&P explore the marketplace to determine the availability of alternatives for completing the Project without B&R as A-E. Tr. 10518-20 (Goldberg). We specifically noted Mr. Goldberg's testimony to that effect in our Phase I decision. LBP-84-13, 19 NRC at 781. Even though that testimony was prompted in part because of the prior testimony of Applicants' witnesses concerning the relationship between B&R and HL&P, neither CCANP nor any other party suggested during Phase I that the testimonies of Mr. Goldberg and Mr. Oprea were inconsistent. In Phase II, Messrs. Oprea, Goldberg and Jordan each reaffirmed that Mr. Goldberg had made such suggestions between January 1981 and May 14, 1981 and each explained why he did not consider such suggestions to constitute discussions "regarding removal of B&R." Oprea, ff. Tr. 14095, at 21-24; Tr. 14378 (Oprea); Goldberg, ff. Tr. 11491, at 65-67; Tr. 12489

(Goldberg); Jordan, ff. Tr. 11908, at 8-10; Tr. 11985, 11999-12000 (Jordan). Obviously CCANP's sole argument is that, in its view, a suggestion that the availability of alternatives be explored must be deemed to constitute a discussion "regarding removal of B&R" and that therefore any failure to mention such suggestions had to be intended to lie or mislead. To the contrary, we believe it was reasonable for Mr. Oprea to understand the question he was asked in 1981 as not encompassing such suggestions, and Applicants' Phase II testimony buttresses our view that his testimony was not false, misleading or incomplete. See ¶¶ III.10-12, 18, 20; Findings IX.18-26, supra. Accordingly, we see no reason to modify our determinations above on this subject.

RV. Current Competence

RV.1. CCANP argued that Applicants lack "current 50.55(e) competence" because (1) Applicants allegedly argued that the Board should not review the competence of Mr. Powell and (2) CCANP questions certain of Mr. Goldberg's interpretations of Section 50.55(e). CCANP FOF, ¶¶ II.80, III.213-216. Neither argument is well taken. Applicants did not argue that the Board should not review Mr. Powell's competence, but rather that it was inappropriate for the Board to attempt to judge his competence by requiring him to testify so that it could test him. Mr. Powell has been chairman of the HL&P IRC for over 5 years and HL&P's good record of compliance with Section 50.55(e) during that time



is a sufficient basis to find him competent. See Findings X.17-18, supra. The record also includes the testimony of Mr. Wisenburg regarding Mr. Powell's qualifications, as well as the qualifications of Mr. Ratter and Mr. Wisenburg, both of whom are also key participants in the IRC/reporting process. The record provides ample evidence regarding HL&P's competence to comply with Section 50.55(e). Findings X.2,6, supra.

RV.2. Although CCANP admits that Mr. Goldberg is experienced in the application of 10 C.F.R. 50.55(e) (CCANP FOF, ¶ III.14), it nevertheless attempts to criticize his interpretation of the regulation. CCANP FOF, ¶ II.80, 82, III.213-216. The Board finds CCANP's criticisms of Mr. Goldberg to be premised on CCANP's misreading of the testimony and the regulation. CCANP suggests that Mr. Goldberg testified that a design deficiency must actually be constructed to be reportable. CCANP FOF, ¶ III.216. Mr. Goldberg did not take such a position. CCANP's citations to the record in support of this argument (Tr. 11676-11768) appear to have been garbled, and are clearly not on point. If CCANP meant to cite Tr. 11776-78, then it is misreading the testimony. There Mr. Goldberg explained that some changes to design result from design evolution, rather than deficient design. In such cases, there being no error, the matter might not be considered reportable. He mentioned that the status of construction would figure into his judgment on whether to report in such a "grey area." Tr. 11774-78 (Goldberg). CCANP cites no basis for questioning Mr. Goldberg's interpretation, and

we are aware of none. CCANP's other basis for questioning Mr. Goldberg's interpretation of Section 50.55(e) is his testimony that interferences would not be reportable under Subsection 50.55(e)(1)(ii) because they are impossible to construct. CCANP FOF, ¶ III.216. In support of its criticism CCANP cites the Staff Guidance, which states that "[t]he fact that a deficiency is obvious and could not possible [sic] go uncorrected and therefore could not adversely affect safe operation does not negate the requirement to formally report the deficiency if it meets the criteria of 50.55(e)." Staff Exh. 137 at 4. In the case of interferences, however, it is not simply a question of obviousness, but physical impossibility. In addition, we note that interferences are common in nuclear plant construction (Tr. 11562 (Goldberg)) and are not considered deficiencies (Tr. 14540-41 (Wisenburg)). CCANP cites no evidence that an interference would be considered a significant deficiency. In any event, Mr Goldberg's judgment was confirmed by Mr. Wisenburg (Id.) and is uncontradicted in the record. The Board finds that Mr. Goldberg's extensive testimony on numerous aspects of the application of Section 50.55(e) in the course of six days of Phase II testimony demonstrated an in depth understanding of the requirements of Section 50.55(e). In addition, the Board finds that the testimony of Mr. Wisenburg and the NRC Staff witnesses, Messrs. Garrison and Phillips, clearly demonstrated that HL&P is currently competent to comply with 10 C.F.R. § 50.55(e). See also ¶¶ IV.2-7; Findings X.1-18, supra.

RVI. Conclusions Regarding Applicants Character

RVI.1. CCANP founded its position in Phase II on its claim that HL&P or its officers or one of its officers engaged in a conspiracy, perhaps with one or more members of the NRC Staff, to conceal the Quadrex Report, or portions of it, from the NRC, including this Board. E.g., CCANP FOF, ¶¶ II.22-25, 28, 43-69. It contends that "[t]aken as a whole, Applicants handling of the Quadrex Report is sufficient to determine that HL&P does not have the necessary character and competence to be granted licenses to operate STP." CCANP FOF, ¶¶ II.69; see also Id. at ¶ II.84. It also claims that Applicants should be disqualified because of HL&P's alleged failure to inform the Board of the evaluation of B&R's role on the Project and to provide testimony in Phase I regarding their dissatisfaction with B&R, and because of alleged "material false statements" in Applicants' prefiled and oral Phase II testimony. CCANP FOF, ¶ II.84. As our detailed findings make clear, we have found no basis for CCANP's claims.

RVI.2. The record makes clear that HL&P performed a good faith review of the Quadrex Report to identify deficiencies reportable under Section 50.55(e) (¶¶ II.10-21, RII.1-75, supra), and that its decision that the Quadrex Report was not material to the Phase I issues was made in good faith (¶¶ III.4-9, RIII.1-3, supra). We found no evidence of material false statements in any Phase I or Phase II testimony (¶¶ III.16-19, R-IV.1-7, supra).

RVI.3. CCANP's arguments on Applicants' compliance with Section 50.55(e) consisted of nothing more than of attempts by its representative, who has no technical expertise, to dispute the opinions of the numerous experts witnesses. The ultimate question is whether the condition constitutes a "deficiency" within the meaning of the complex requirements set forth in Section 50.55.(e), a question that requires the judgment of an experienced professional. CCANP has not shown any basis for questioning the judgments of such witnesses.

RVI.4. Although CCANP and the Staff agree that the Quadrex Report was material to the Phase I issues, they disagree as to the significance of Applicants' delay in providing it to us until September, 1981. CCANP claims this delay is disqualifying (CCANP FOF, ¶ II.28), while the Staff argues that it does not reflect adversely on Applicants, and is not disqualifying (Staff FOF, ¶¶ F.7, 9). Applicants suggest we reconsider our earlier ruling and find that there was no violation of its McGuire obligations. As our decision reflects, even if we were inclined to reject Applicants' position, we would find that the delay in providing the Report to us did not result from any defect in character or competence. ¶¶ III.6-7, supra. Although CCANP argues that Applicants' executives "showed no remorse" (CCANP FOF, ¶ III.157) and that HL&P should have punished the executives CCANP charges with wrong doing (CCANP FOF, ¶¶ III.158), the testimony of Applicants' witnesses reflected a sincere desire to fulfill their obligations to the Commission, including properly

informing this Board. We found no evidence that HL&P's decision that the Quadrex Report was not material to the issues before us was anything but a good faith judgment.

RVI.5. CCANP's charges of false testimony consist of a string of perceived inconsistencies between the testimony of various witnesses on matters that, on any reasonable basis, must be judged collateral and insignificant. For the most part CCANP's perceptions of inconsistency are simply based on a misreading of the record. The other examples are simply minor differences in recollection about discussions that occurred four or more years ago. We have found no significant discrepancies.

RVII. Conclusions of Law

RVII.1. Since CCANP's proposed conclusions of law are based on its proposed findings of fact that we have generally rejected, we reject such conclusions as well. To a limited extent the Staff's proposed conclusions of law rely on its proposal that we adhere to our earlier ruling that Applicants violated the McGuire doctrine by providing the Quadrex Report to us in September 1981, rather than promptly after receipt in May. Since we have decided to reconsider that ruling, the portion of the Staff's proposed conclusions of law relying on such ruling is also rejected. Otherwise, the Staff's proposed conclusions of law have a reasonable basis, but we choose to adhere to the conclusions of law expressed in Section XI, supra.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

DOCKETED  
USNRC

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OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

In the Matter of	)	
	)	
HOUSTON LIGHTING & POWER	)	Docket Nos. 50-498 OL
COMPANY, <u>ET AL.</u>	)	50-499 OL
	)	
(South Texas Project, Units 1	)	
and 2)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of Applicants' Reply To Proposed Findings Of Fact And Conclusions Of Law Submitted By The Other Parties - Phase II have been served on the following individuals and entities by deposit in the United States mail, first class, postage prepaid on this 27th day of November 1985.

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