

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

MIAN M. SUBHANI,)	
)	
Petitioner,)	
)	
vs.)	Case No. 99-2054
)	
DEPARTMENT OF BUSINESS AND)	
PROFESSIONAL REGULATION,)	
FLORIDA BOARD OF PROFESSIONAL)	
ENGINEERS,)	
)	
Respondent.)	
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RECOMMENDED ORDER

Pursuant to notice, a hearing was held in this case in accordance with Section 120.57(1), Florida Statutes, on November 1, 1999, by video teleconference at sites in Fort Lauderdale and Tallahassee, Florida, before Stuart M. Lerner, a duly-designated Administrative Law Judge of the Division of Administrative Hearings.

APPEARANCES

For Petitioner: Mian M. Subhani, pro se
5340 West Saxon Circle
Fort Lauderdale, Florida 33331

For Respondent: William H. Hollimon, Esquire
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STATEMENT OF THE ISSUE

Whether Petitioner is entitled to additional credit for his solutions to four problems on the Principles and Practice of

Engineering portion of the engineering licensure examination administered on October 30, 1998, by the National Council of Examiners for Engineers and Surveyors.

PRELIMINARY STATEMENT

By letter dated March 26, 1999, Petitioner made the following request directed to Natalie Lowe of the Florida Board of Professional Engineers (Board):

I, Mian Mahboob Subhani, request an examination challenge [to the failing score he received on the October 30, 1998, Principles and Practice of Engineering portion of the engineering licensure examination administered by the National Council of Examiners for Engineers and Surveyors]. I am enclosing three pages of Request for Review of Examination Challenge Item" . . . [f]or questions: No. 120, 125, and 222. I am requesting a review of question #120, which is discussed on page 1. Question #125 is discussed on page 2 and question #222 is discussed on page 3. I already have submitted two pages of scratch paper . . . which I submitted at my review process on March 19, 1999. Will you please review question numbers 120, 125, and 222. There looks to be an error on these three questions.

On May 5, 1999, Ms. Lowe, on behalf of the Board, referred the matter to the Division of Administrative Hearings (Division) for the "assign[ment of] an Administrative Law Judge to conduct a hearing pursuant to Section 120.57(1), Florida Statutes."

As noted above, the hearing was held on November 1, 1999. 1/ At the hearing, Petitioner testified on his own behalf, and Clayton Campbell, P.E., testified (as an expert) on behalf of Respondent. No other witnesses testified. In addition to the

testimony of Petitioner and Mr. Campbell, a total of 17 exhibits (Respondent's Exhibits 1 through 17) were offered and received into evidence.

At the conclusion of the evidentiary portion of the hearing, the undersigned announced, on the record, that post-hearing submittals had to be filed within ten days of the date of the filing of the transcript of the hearing. The hearing Transcript (consisting of one volume) was filed on November 30, 1999.

Petitioner and Respondent timely filed their post-hearing submittals on November 12, 1999, and December 10, 1999, respectively. These post-hearing submittals have been carefully considered by the undersigned.

FINDINGS OF FACT

Based upon the evidence adduced at hearing and the record as a whole, the following findings of fact are made:

1. On October 30, 1998, as part of his effort to obtain a Florida engineering license, Petitioner sat for the Principles and Practice of Engineering Examination (Examination). This is a national examination developed and administered by the National Council of Examiners for Engineers and Surveyors (NCEES). Petitioner chose to be tested in civil engineering.

2. Petitioner received a raw score of 45 on the Examination. For the civil engineering specialization, a raw score of 45 converts to a score of 67. To pass the Examination, a converted score of 70 is needed.

3. Petitioner formally requested (in writing, by letter dated March 26, 1999) that his solutions to Problems 120, 125, and 222 on the Examination be rescored. Petitioner's written request was made to Natalie Lowe of the Board, who forwarded it to the NCEES.

4. Appended to Petitioner's letter to Ms. Lowe were two pages of "scratch paper" on which Petitioner had written during his post-examination review on March 19, 1999. On the first page were written comments he had made regarding the scoring of Problems 120 and 125. On the second page were the following written comments he had made regarding the scoring of Problems 220 and 222:

220 a, b, & c

2 parts b & c correct.

Min. mark I should get[:]

At least 5 instead of 2 and maybe 7.

There is an error.

222 ok

5. The NCEES's rescoring of Petitioner's solutions to Problems 120, 125, and 222 resulted in his receiving a raw score of 43 (or a converted score of 65, 5 points less than he needed to pass the Examination).

6. The Board received the NCEES's rescoring results on May 12, 1999.

7. The Board subsequently referred the matter to the Division to conduct an administrative hearing.

8. At the administrative hearing that was held pursuant to the Board's referral, Petitioner challenged the grading of his solutions to Problems 120, 125, and 220 of the Examination, and indicated that he had "no dispute concerning the grading of [his solution to Problem] 222," notwithstanding that he had requested, in his March 26, 1999, letter to Ms. Lowe, that his solution to Problem 222 be rescored. Petitioner explained that he had made this request as a result of inadvertence and that he had actually intended to seek rescoring of his solution to Problem 220, not Problem 222.

9. Problems 120, 125, and 222 were worth ten raw points each.

10. Problem 120 contained four subparts (or requirements).

11. Petitioner initially received four raw points for his solution to Problem 120. Rescoring did not result in any change to this score.

12. Petitioner solved two subparts of Problem 120 correctly (subparts (a) and (b)). The solutions to the other two subparts of Problem 120 (subparts (c) and (d)), however, were incorrect inasmuch as Petitioner had neglected, in making the lateral force calculations and drawing the diagrams required by these subparts, to include the force attributable to the movement of the groundwater referred to in the problem. Therefore, in accordance

with the requirements and guidelines of the NCEES scoring plan for this problem, the highest raw score that he could have received for his solution to this problem was a four, which is the score he received.

13. Problem 125 contained three subparts (or requirements).

14. Petitioner initially received a raw score of two for his solution to Problem 125. Upon rescoring, no change was made this raw score.

15. Petitioner correctly solved only one of the three subparts of Problem 125 (subpart (c)). In his solution to subpart (a) of Problem 125, Petitioner did not provide, as required by this subpart, the quantities of water, cement, and aggregate necessary for the project described in the problem. Petitioner's solution to subpart (b) did not describe one of the acceptable slump increasing methods that the candidates were required describe in their solution to this subpart. Accordingly, giving Petitioner a raw score of two for his solution to Problem 125 was consistent with the requirements and guidelines of the NCEES scoring plan for this problem.

16. Petitioner received a raw score of two for his solution to Problem 220. He did not request, in his March 26, 1999, letter to Ms. Lowe, a rescoring of his solution to this problem, and, as a result, his solution was not rescored. At the administrative hearing, Petitioner testified on his own behalf regarding the scoring of this solution and, during his testimony,

contended that the score he received was too low; however, neither a copy of the problem, nor a copy of the NCEES scoring plan for this problem, was offered into evidence. Accordingly, the record is insufficient to support a finding that the score Petitioner received for his solution to Problem 220 was undeservedly low in light of the NCEES scoring plan for this problem.

17. Petitioner initially received a raw score of eight for his solution to Problem 220. Rescoring resulted in this score being reduced two points to a six. Petitioner did not present any evidence supporting the position (which he advances in his Proposed Recommended Order) that he should have received a higher score for his solution to this problem, and, consequently, Respondent's expert, in his testimony at hearing, did not address the matter. While there were exhibits offered (by Respondent) and received into evidence relating to the scoring of Petitioner's solution to Problem 222, it is not apparent from a review of these exhibits that such scoring deviated from the requirements of the NCEES scoring plan for this problem (which was received into evidence as part of Respondent's Exhibit 12).

CONCLUSIONS OF LAW

18. A person seeking to become licensed by the Department of Business and Professional Regulation (Department) to practice engineering in the State of Florida must take and pass a licensure examination (provided that person is not entitled to

licensure by endorsement). Sections 471.013 and 471.015, Florida Statutes.

19. The required examination is described in the Board of Professional Engineer's (Board's) Rules 61G15-21.001 and 61G15-21.002, Florida Administrative Code, which provide, in pertinent part, as follows:

61G15-21.001 Written Examination Designated;
General Requirements.

(1) The Florida Board of [Professional] Engineers hereby determines that a written examination shall be given and passed prior to any applicant receiving a license to practice as a professional engineer The examination shall be provided by the National Council of Examiners for Engineers and Surveyors (NCEES). 2/ The examination consists of two parts, each of eight hours. Candidates are permitted to bring certain reference materials, slide rules and certain calculators. A list of approved reference materials and calculators will be provided to all candidates prior to each examination. All materials including pens and pencils are to be furnished by the applicant. National examination security requirements as set forth by the NCEES shall be followed throughout the administration of the examination. . . .

61G15-21.002 Areas of Competency and Grading
Criteria.

(1) The Engineering Fundamentals Examination shall include all questions and problems on subjects normally connected with the basic fundamentals of engineering education. The topics which will usually be treated in this section are as follows: mathematics, mathematical modeling of engineering systems, nucleonics and wave phenomena, chemistry, statistics, dynamics, mechanics of materials, fluid mechanics, thermodynamics/heat transfer, computer programming, electrical

circuits, statics, structure of matter, engineering mechanics, electronics and electrical machinery.

(2) Part two of the examination shall be based on Professional Practice and Principles and shall be devoted primarily to the field of the applicant's finding solutions to problems designed to test the applicant's ability to apply acceptable engineering practice to problems which are representative of his discipline. Applicants for registration must select one of the listed specializations in which to be examined. The Board may also authorize examinations in other engineering disciplines when the Board determines that such disciplines warrant the giving of a separate examination in terms of cost effectiveness and acceptability in the profession of engineering.

(3) In Part Two of the examination the applicant will usually be required to solve from seven to ten problems which the applicant may choose from approximately twenty problems drawn from a test pattern generally set forth as follows: . . .

(b) Civil/Sanitary -- Highway, Structural, Sanitary Planning, Fluids, Soils, Economics, Water Control and Resources, Treatment Facility Design, Fluid Flow Hydraulics, Planning Analysis, System Design, Chemical-Bio Problems, Materials Sections, and Economics. . . .

20. The Board's Rules 61G15-21.003 and 61G15-21.004, Florida Administrative Code, address the grading of the licensure examination. These rules provide, in pertinent part, as follows:

61G15-21.003 Grading Criteria for the Essay Portion of Examination.

(1) Insofar as the essay portion of the examination is not machine graded the Board deems it necessary to set forth the following guidelines upon which grades for the essay portion shall be based. Grades on the essay

portion of the examination will be based upon the application of good engineering judgment, the selection and evaluation of pertinent information and the demonstration of the ability to make reasonable assumptions when necessary. Answers may vary due to assumptions made. Partial credit will normally be given if correct fundamental engineering principles are used, even though the answer may be incorrect. All grading will be done by an expert committee provided by the national testing service supplying the examination. 3/

(2) An applicant must follow all pertinent instructions on the examination booklet and the solution pamphlet. The applicant shall indicate which problems he has solved and is submitting for credit in the designated boxes on the front cover of the solution pamphlet. If an applicant fails to indicate which problems he is submitting for credit in the designated boxes, only the first four problems worked in said pamphlet shall be graded.

61G15-21.004 Passing Grade. . . .

(2) A passing grade on Part Two of the examination is defined as a grade of 70 or better. The grades are determined by a group of knowledgeable professional engineers, who are familiar with engineering practice and with what is required for an applicable engineering practice and with what is required for an applicable engineering task. These professional engineers will establish a minimum passing score on each individual test item (i.e., examination problem). An Item Specific Scoring Plan (ISSP) will be prepared for each examination item based upon the NCEES standard scoring plan outline form. An ISSP will be developed by persons who are familiar with each discipline including the item author, the item scorer, and other NCEES experts. On a scale of 0-10, six (6) will be a minimum passing standard and scores between six (6) and ten (10) will be considered to be passing scores for each examination item. A score of five (5) or lower will be considered

an unsatisfactory score for that item and the examinee will be considered to have failed that item. To pass, an examinee must average six (6) or greater on his/her choice of eight (8) exam items, that is, the raw score must be forty-eight (48) or greater based on a scale of eighty (80). This raw score is then converted to a base 100 on which, as is noted above, a passing grade will be seventy (70).

21. The Board's Rule 61G15-21.006, Florida Administrative Code, provides that "[e]xam review procedures are governed by rule 61-11.017, F.A.C." and that "[a]ll reviews of answers, questions, papers, grades, and grading key shall be at a mutually convenient time and subject to national testing security requirements in order to insure the integrity of the examination."

22. Rule 61.017, Florida Administrative Code, is a Department rule which provides, in pertinent part, that "[r]eview of examinations developed by or for a national council, association, society (herein after referred as national organization) shall be conducted in accordance with national examination security guidelines."

23. In the instant case, after receiving a failing score on the Principles and Practice of Engineering portion of the NCEES-administered and graded engineering licensure examination and receiving an even lower score upon subsequent review and rescoring, Petitioner requested a "formal administrative hearing" to contest his failing score.

24. The Board (acting through the Florida Engineers Management Corporation, a Florida not-for-profit corporation created pursuant to Section 471.038, Florida Statutes, "to provide administrative, investigative, and prosecutorial services" to the Board) granted Petitioner's request for a hearing and referred the matter to the Division for hearing.

25. In those instances where a State of Florida licensing board or agency is empowered to alter a candidate's failing examination score, the candidate is entitled to a hearing, pursuant to Chapter 120, Florida Statutes, to contest his or her failing score. At the hearing, the candidate bears the burden of establishing, by a preponderance of the evidence, that his or her failing score was the product of arbitrary or otherwise improper or erroneous grading. See Harac v. Department of Professional Regulation, Board of Architecture, 484 So. 2d 1333, 1338 (Fla. 3d DCA 1986)("Ordinarily one who fails a licensure examination would shoulder a heavy burden in proving that a subjective evaluation by an expert is arbitrary."); Florida Department of Health and Rehabilitative Services v. Career Service Commission, 289 So. 2d 412, 414 (Fla. 4th DCA 1974)(1974)("[T]he burden of proof is on the party asserting the affirmative on an issue before an administrative tribunal. . . . 'As a general rule the comparative degree of proof by which a case must be established is the same before an administrative tribunal as in a judicial proceeding--that is, [a]

preponderance of the evidence. It is not satisfied by proof creating an equipoise, but it does not require proof beyond a reasonable doubt.'"); Section 120.57(1)(j), Florida Statutes ("Findings of fact shall be based upon a preponderance of the evidence, except in penal or licensure disciplinary proceedings or except as otherwise provided by statute, and shall be based exclusively on the evidence of record and on matters officially recognized.").

26. Petitioner failed to submit such proof in the instant case.

27. In attempting to demonstrate that he should have received higher scores for his solutions to Problems 120, 125, and 220 of the Examination, Petitioner did not present the testimony of any independent expert witness. Instead, he relied exclusively on his own testimony, which he was free to do notwithstanding his interest in the outcome of the case. See Martuccio v. Department of Professional Regulation, 622 So. 2d 607, 609-10 (Fla. 1st DCA 1993).

28. Respondent countered Petitioner's testimony regarding Problems 120 and 125 with the expert testimony of a knowledgeable Florida-licensed engineer, Clayton Campbell, P.E. Given Mr. Campbell's impressive credentials and qualifications, and his apparent candor and lack of bias, the undersigned has credited his (Mr. Campbell's) expert testimony (concerning the scoring of Petitioner's solutions to Problems 120 and 125) over Petitioner's

testimony to the contrary, and he has determined that the scores Petitioner received for his solutions to these problems were not, given the requirements and guidelines of the NCEES scoring plan for these problems, undeservingly low.

29. The record evidence in this case is also insufficient to support Petitioner's position (articulated during his testimony) that he should have received a higher score for his solution to Problem 220 inasmuch as neither a copy of the problem itself or the NCEES scoring plan for the problem is a part of the evidentiary record.

30. Petitioner's contention (advanced for the first time in his post-hearing submittal) that the rescoring of his solution to Problem 222 resulted in a lower score than he deserved likewise lacks sufficient evidentiary support.

31. Moreover, even if Petitioner had persuaded the undersigned that he (Petitioner) should have received higher scores from the NCEES for his solutions to Problems 120, 125, 220, and 222, the undersigned would still not recommend that the Board grant Petitioner the relief he is seeking in this case. This is because the Examination is "an examination developed by or for a national board, council, association, or society," within the meaning of the Department's Rule 61-11.012(1), Florida Administrative Code, and, pursuant to that rule provision, the Board must "accept the development and grading of such [an] examination without modification." See also Department Rule 61-

11.010(1)(a), Florida Administrative Code ("National Examinations shall be graded solely and exclusively by the National examination provider or its designee. National examinations shall include those developed by or for national boards, councils, associations or societies."); Board Rule 61G15-21.003(1), Florida Administrative Code ("All grading will be done by an expert committee provided by the national testing service supplying the examination.").

32. In view of the foregoing, Petitioner's challenge to the scores he received from the NCEES for his solutions to Problems 120, 125, 220, and 222 of the Principles and Practice of Engineering portion of the October 30, 1998, engineering licensure examination should be rejected.

RECOMMENDATION

Based on the foregoing Findings of Fact and Conclusions of Law, it is

RECOMMENDED that a final order be entered rejecting Petitioner's challenge to the failing score he received from the NCEES on the Principles and Practice of Engineering portion of the October 30, 1998, engineering licensure examination.

DONE AND ENTERED this 20th day of December, 1999, in
Tallahassee, Leon County, Florida.

STUART M. LERNER
Administrative Law Judge
Division of Administrative Hearings
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Filed with the Clerk of the
Division of Administrative Hearings
this 20th day of December, 1999.

ENDNOTES

1/ The hearing was originally scheduled to commence on August 6, 1999, but was continued at the request of Respondent.

2/ A licensing board within the Department of Business and Professional Regulation, such as the Board of Professional Engineers, is authorized by Section 455.217(1)(d), Florida Statutes, to "approve by rule the use of any national examination which the department has certified as meeting requirements of national examinations and generally accepted testing standards pursuant to department rules." A "national examination," as that term is used in Section 455.217, Florida Statutes, is defined in Rule 61-11.015, Florida Administrative Code, as follows:

(1) . . . To ensure compliance, the following definition of a national examination shall be applied when using a national examination.

(2) A national examination is an examination developed by or for a national professional association, board, council or society (hereinafter referred to as organization) and administered for the purpose of assessing entry level skills necessary to protect the health, safety and welfare of the public from incompetent practice.

(a) The purpose of the examination shall be to establish entry level standards of practice that shall be common to all practitioners.

(b) The practice of the profession at the national level must be defined through an occupational survey with a representative sample of all practitioners and professional practices.

(c) The examination for licensure must assess the scope of practice and the entry skills defined by the national occupational survey.

(3) The national organization must be generally recognized by practitioners across the nation in the form of representatives from the State Boards or shall have membership representing a substantial number of the nation's practitioners who have been licensed through the national organization examination.

(4) The national organization shall be the responsible body for overseeing the development and scoring of the national examination.

(5) The national organization shall provide security guidelines for the development and grading of the national examination and shall oversee the enforcement of these guidelines.

3/ Pursuant to the Department's Rule 61-11.010(1)(a), Florida Administrative Code, "National Examinations shall be graded solely and exclusively by the National examination provider or its designee."

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NOTICE OF RIGHT TO SUBMIT EXCEPTIONS

All parties have the right to submit written exceptions within 15 days from the date of this recommended order. Any exceptions to this recommended order should be filed with the agency that will issue the final order in this case.