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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE ADMINISTRATIVE JUDGE

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

In the Matter of)	
)	
ALFRED J. MORABITO)	Docket No. 55-60755
)	
(Senior Operator License for)	
Beaver Valley Nuclear Power)	
Station, Unit 1))	

NRC STAFF RESPONSE TO SPECIFICATION OF CLAIMS

I. INTRODUCTION

By Memorandum and Order (Order) dated July 15, 1987, the Presiding Officer in this proceeding requested Mr. Morabito to particularize his claims of error in the NRC staff's (Staff) denial of his application for senior reactor operator (SRO) license. The Order also requested the parties to indicate their views on the necessity or desirability of oral presentations. On July 31, 1987, Mr. Morabito submitted a specification of claims of error in the grading of his examination answers (Specification) and supporting exhibits. Additionally, Mr. Morabito stated that oral presentations would be necessary only if there is no agreement to revise the operator examination process. The Staff hereby responds to the claims of error in the Staff's grading of Mr. Morabito's examinations for SRO license and states its opinion that oral presentations are unnecessary.

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NUCLEAR REGULATORY COMMISSION

Docket No. 55-6075 Certificate No. 1
In the matter of Alfred Morabito
Staff X IDENTIFIED X
Applicant _____ RECEIVED _____
Interviewer _____ REJECTED _____
Cont's Off'r _____
Contractor HR DATE 2/21/88
Other _____ Witness _____
Reporter Andrew Emerson

Case No.

55-6075

Staff Exh 1C

Exhibit

Morabito

2/21/88

No. Entered


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II. BACKGROUND

On July 22 and 23, 1986, Mr. Morabito took written and operating (oral and simulator) examinations administered by NRC Region I examiners. Five applicants for SRO license for the Beaver Valley Nuclear Power Station, Unit 1 were examined. ^{1/} Of the five applicants for SRO license, three passed and two failed the examinations. ^{2/} By letter dated August 27, 1986, Mr. Morabito was notified that he had failed the written and simulator examinations and his application for license was denied. Mr. Morabito failed only one section of the written examination (Section 6: "Plant systems design, control, and instrumentation") with a grade below the 70% required for each of the four sections. See: grade sheet, attached. For the simulator examination, Mr. Morabito received four unsatisfactory and four satisfactory grades for the eight competencies required to be evaluated. The four competencies evaluated as unsatisfactory were (i) compliance/use of procedures; (ii) control board operations; (iii) supervisory ability; and (iv) communications/crew interactions. A rating of unsatisfactory in any one competency may be the basis for failure of the simulator examination.

As provided by NRC procedures, Mr. Morabito appealed the failing grade on his examination first to Region I, and then to NRR. Upon review of the examinations and consideration of Mr. Morabito's comments by

^{1/} Three were initial candidates. Two were retaking part or all of the examinations previously failed. See: NRC Region I Examination Report No. 50-334/86-16(OL), September 23, 1986. (Exhibit Z in support of Specification of Claims).

^{2/} Two candidates who passed were retaking the examinations and one who passed was taking it for the first time.

Region I personnel, Mr. Morabito's grade for Section 6 was increased somewhat but remained below the required 70%, and the unsatisfactory ratings of the simulator examination were affirmed. ^{3/} Further review by the Division of Human Factors, NRE, also confirmed the failing grades. ^{4/} After these reviews, Mr. Morabito repeated his request for hearing, originally submitted by letter dated September 11, 1986. The Commission directed that an informal hearing be held by Order dated July 1, 1987.

III. DISCUSSION

A. The Specification of Claims

In his specification of claims, Mr. Morabito sets out four general issues, namely, whether he passed (1) the written and (2) the simulator examinations, and if so, whether (3) the Staff review process and (4) examination process are valid. Specification at 1-2. In support of these issues each written and simulator examination answer which Mr. Morabito believes to have been erroneously graded is explained and defended. Specification at 3-24. Mr. Morabito challenges the grading in the sections of the written examination which he passed, as well as the oral examination which he also passed. Specification at 3-5;10-17. For Section 6 of the written examination, the one section he failed, Mr. Morabito takes issue with only five of the eighteen answers graded as

^{3/} See: letter dated November 12, 1986, and attachments from W. Kane to A. Morabito, previously provided to the Presiding Officer, also Exhibit L to Specification.

^{4/} See: Letter and attachments from W. Russell to A. Morabito dated February 2, 1987, previously provided; also Exhibit Q to Specification.

incorrect. ^{5/} Of the five answers raised as issues, only two were appealed for NRR review. (Questions 6.03b and 6.07b.) In addition to claims regarding the original grading of his examination, Mr. Morabito submitted challenges to comments of the reviewers of his simulator examination. Specification at 24-29. For his assertions, Mr. Morabito refers to supporting documents submitted with the specification. Exhibits A-Z; AA-BB. In conclusion, Mr. Morabito states that if it is decided that he did in fact pass the written and simulator examinations, a serious question will be raised as to the review and examination process. Specification at 30-31. Mr. Morabito states that he does not view oral presentation to be necessary if agreement to revise the license examination process can be reached as a result of this proceeding, and regardless of whether or not he proves all his claims. Specification at 32.

B. The Staff Response to the Specification

The Staff has not addressed the claims submitted for those parts of the examination which Mr. Morabito passed. There is no issue raised regarding Sections 5, 7 and 8 of the written examination or the oral portion of the operating examination since the Staff agrees that Mr. Morabito passed those parts of the examination. Only two issues are raised by Mr. Morabito for adjudication. Issues one and two concern the examination itself. Issues three and four, pertaining to examination procedures, are contingent upon proof of issues one and two. However, the Presiding

^{5/} The following answers were graded as partially or wholly incorrect: 6.01b, 6.03b, 6.04c, 6.06a & b, 6.07a-c, 6.08a-c, 6.09a-d, 6.10a-c. Mr. Morabito challenges the grading only on 6.03b, 6.06a&b, 6.07a, and 6.09a.

Officer has previously ruled that his jurisdiction in this proceeding does not include revision to the operator licensing process. Memorandum and Order (Ruling on Various Motions), August 25, 1987, at 5.

The two issues raised which are within the confines of this proceeding are (1) whether Mr. Morabito passed Section 6 of the written examination and (2) whether he passed four parts of the simulator examination. No issue is raised as to whether a higher grade should have been granted for the portions of the examinations Mr. Morabito passed. Therefore, the Staff has addressed only the specification of claims which concern those portions of the written and simulator examinations which the Staff asserts that Mr. Morabito failed and which Mr. Morabito asserts that he passed.

Barry S. Norris and David M. Silk, the Staff examiners who administered Mr. Morabito's examination, explain in the attached affidavit (Affidavit) that Mr. Morabito's assertions of errors in grading are incorrect in all respects except for a partial answer in Question 6.03b, discussed below. The Specification of issues concerning the five answers in Section 6 of the written examination and the four sections of the simulator examination and the Staff's response to the Specification are as follows:

(1) The Written Examination, Section 6

Question 6.03b: Mr. Morabito provided four answers for this question which asked for three design features of the component cooling water system which minimize the effects of a rupture of the RCP thermal barrier. The point value of the question was 1.5. Affidavit ¶¶ 7-8. The

first answer was graded as correct even though it was partially incorrect. Affidavit ¶ 9. The other three answers were graded incorrect. Mr. Morabito defends his answers 2) and 4) on the basis that they are among several correct answers but that the examiners' key listed only three. Specification at 5-6.

Staff Response: In the present review, the fourth answer has been determined to be correct due to the Staff's extensive inquiries, including the Westinghouse Company. Affidavit ¶¶ 13-14. Consequently, additional points for the fourth answer have been added to Mr. Morabito's previous score. Affidavit ¶ 15. However, the second answer does not respond to the question since it describes a design feature to be used during maintenance of the component cooling water system. Affidavit ¶¶ 10-11. Therefore, Mr. Morabito's fourth answer to Question 6.03b is correct but the second answer is clearly incorrect. The adjusted point value for this question is 0.75 out of the possible 1.5 and his previous grade is increased to 15.65 total points out of a possible 22.6 for Section 6, or 69.2%. Affidavit ¶¶ 15,36.

Question 6.06a: Mr. Morabito's response to this question as to what is used to control RCS pressure during cold solid plant operations was the overpressure protection system. Affidavit ¶¶ 16-17. Mr. Morabito argues that the question did not ask for "normal control" of RCS pressure but only for "control" and also that the word "what" in the question is very ambiguous. He asserts that his answer is correct. Specification at 6.

Staff Response: The correct answer to this question is the letdown pressure control valve whereas Mr. Morabito's answer is not relevant to pressure control, but rather, overpressure protection. Affidavit ¶ 18. Mr. Morabito's argument as to the wording of the question is without merit as it would be understood by those who distinguish between control systems and protection systems. Affidavit ¶ 19. Thus, Mr. Morabito's answer to Question 6.06a is clearly incorrect and his arguments in support of his answer provide no basis for a grade change.

Question 6.06b: In response to this question of what three plant conditions provide inputs to the interlocks associated with RHR suction valve MOV-RH-701, Mr. Morabito answered correctly except for describing the pressurizer temperature as less than 470, rather than 475 degrees. Affidavit ¶¶ 20-21. The examiner wrote in the correct setpoint number (475) but did not delete points. The regrader deleted 0.2 points for the incorrect number. Affidavit ¶ 21. Mr. Morabito argues this was invalid because the examiner did not deduct points and the 0.2 points should be reinstated. Specification at 6-7.

Staff Response: While it may appear that the 5 degree difference is not significant, an incorrect setpoint could lead to incorrect activation of the interlock and inappropriate valve positioning. Affidavit ¶ 22. Moreover, during the appeal of an examination, the reviewers' objective is to ensure that the grading was both fair and correct. Id. Since the pressurizer temperature stated in the answer was incorrect, there is no reason to award the 0.2 points asked by Mr. Morabito.

Question 6.07a: In answer to this question of the importance of the steam generator code safety valves during power operation, Mr. Morabito described the valves as the first means of protection for Tavg (temperature average) increases above program to prevent violating the safety limit curve. Affidavit ¶¶ 23-24. Mr. Morabito asserts his answer is correct based on Exhibit K to his Specification (Duquesne Light Company Nuclear Division Training Manual), p. 25 ¶ 4 and Attachment 1.

Staff Response: The answer provided is incorrect because the first response to a high T average is control rod motion. Affidavit ¶ 25. In addition, the Exhibit K reference does not support the answer since it describes design features which provide T average protection prior to operation of the steam generator valves and states that the valves provide this type of protection only at low power levels. Id. Mr. Morabito has not shown that his answer is correct and no basis is provided for a change in grade.

Question 6.07b: This question asked for two reasons why the MSIV's are required to close during a steam line rupture. Affidavit ¶ 27. Mr. Morabito's answer was 1) to isolate the faulted steam generator; 2) to prevent blowdown of the non-faulted steam generators through the break. Affidavit ¶ 28. Mr. Morabito argues that, contrary to the Staff's assessment, his answers are not redundant, and refers to Exhibit M (BVPS Updated Final Safety Analysis Report) as support. He also describes an accident in which one main steam header ruptures between the main steam

isolation valve and the non-return valve to demonstrate that his two answers are different ones. Specification at 7-8.

Staff Response: Mr. Morabito is incorrect in believing that he provided two different answers. Both answers describe valve closing to isolate a leak. Affidavit ¶ 30. No basis for a higher grade on this question has been provided.

Question 6.09a: This question asked what two simultaneous conditions cause the quench spray flow cut-back valves to close. The answer key listed (a) associated quench spray pump running and (b) RWST (refueling water storage tank) low low level. Affidavit ¶ 31. However, Mr. Morabito answered (1) One hour running time elapsed, (2) RWST level at setpoint. Affidavit ¶ 32. Mr. Morabito asserts that the NRC answer to this question is incorrect and that the proof that his answer is correct is shown by Exhibit N. Specification at 8-10.

Staff Response: The NRC answer key was taken from the Beaver Valley Operating Manual Chapter, whereas Exhibit N does not address the interlocks on the cut-back valves, nor does Mr. Morabito's answer address conditions in which the cut-back valves close. Affidavit ¶ 34. Therefore, no support has been provided for Mr. Morabito's assertion that his answer is correct. Accordingly, the grade should not be changed.

Summary Concerning the Written Examination

As demonstrated by the above discussion, the arguments and evidence in the Specification of Claims concerning five answers for Section 6 are not sufficient to support Mr. Morabito's assertion that his answers were correct. The Staff has on its own, obtained information to support one part of one answer (6.03b) and added the appropriate number of points for the correct answer. However, the increase in grade point does not result in the 70% required to pass Section 6. In sum, Mr. Morabito has not demonstrated that the answers defended in the Specification are correct nor that he should have received a passing grade whereas the explanations provided by the Staff show that the failing grade Mr. Morabito received for the written examination was correct.

2. The Simulator Examination

Mr. Morabito received an unsatisfactory rating in the following categories of competency during the simulator examination:

- (i) Compliance/Use of Procedures;
- (ii) Control Board Operations;
- (iii) Supervisory ability;
- (iv) Communications/Crew Interactions

The three simulator scenarios on which Mr. Morabito was tested for eight types of competency were a series of simulated events as follows:

Scenario # 1: Boron dilution accident; vacuum breaker leak; pressurizer reference signal failure; erratic governor valve control; station blackout.

Scenario # 2: B spray valve fails closed; Tave (temperature average) input to steam dumps failed low; B loop FRV

(feedwater regulating valve) bypass fails open; loop 3 Th (hot leg temperature) fails high; turbine governor valves fail closed; fail PORV block valve open for 455D (537) due to a breaker problem; fail Pzr (pressurizer) PORV 455D open.

Scenario # 3: PRNI (power range nuclear instrument) (44) fails high; S/G (steam generator) tube leak developing into rupture; fail pzr level high; FWP-1A (feedwater pump) trip from 75% power, power reduction; "A" HHSI (high head safety injection) pump fails to auto start on low pressure SI. ^{6/}

The four sections of the simulator examination which Mr. Morabito failed, the examiner's comments explaining his evaluation, ^{7/} Mr. Morabito's answers to the examiner's comments, and the Staff responses to Mr. Morabito's claims are set out below.

(I) Compliance/Use of Procedures:

Examiner's comment #1: The examiner noted Mr. Morabito's failure to consult any procedure when decreasing load to check power range indicator response during the first scenario. Affidavit ¶ 39. Mr. Morabito asserts that no procedure is required for the 10% power decrease which he ordered to determine whether the instruments were faulty. He points out that once he determined the instruments were not faulty, even though

^{6/} See: USNRC Senior Operator Examination Report, Docket No. 55-60755, Al Morabito, July 22-23, 1986. (Also Exhibit J to Specification).

^{7/} Ibid.

they initially did not provide correct information, he halted the power reduction after a 5% decrease. Specification at 13-14; Exhibit S, Attachment B, p. 4.

Staff Response: Mr. Morabito's assertion is not correct. To perform a test of instrument accuracy, either an abnormal operating procedure or a surveillance procedure should be used. Affidavit ¶ 41. Moreover, Mr. Morabito failed to identify the dilution accident in the scenario through his failure to use the appropriate procedure to verify the instrumentation. The load reduction masked the indications of the dilution accident which was creating an unsafe reactivity condition. Affidavit ¶¶ 41-42. Therefore, Mr. Morabito's failure to follow procedures had significant safety implications and was not the minor error he asserts. Mr. Morabito's argument provides no justification for his unsatisfactory performance in omitting required procedures as described in the examiner's first comment, and no reason is given for a grade change.

Examiner's comment #2: During the second scenario the examiner remarked that Mr. Morabito asked an operator about the RCS hot leg temperatures but did not wait for the operator's response and answered the question aloud to himself. The operator then indicated a different answer. Affidavit ¶ 43. Mr. Morabito asserts that the action he took was correct and his remark prior to the operator's answer is insignificant. Specification at 17-18; Exhibit B, Attachment B, p.9.

Staff Response: Mr. Morabito did not take the correct action in that he incorrectly analyzed effects of the transient in the scenario and improperly attempted analysis instead of a symptomatic approach provided in the emergency procedures. Affidavit ¶ 45. Thus, his argument that his peremptory assumption was not significant since his actions were proper is not an accurate assessment of his performance in the second scenario when he again failed to use the procedure properly. Mr. Morabito's argument does not affect the second adverse comment by the examiner concerning use of procedures and provides no reason for a grade change.

Examiner's comment #3: It is not clear why Mr. Morabito raises this comment as an issue since he indicates the comment was deleted during the regrade/review process. Specification at 18. No Staff response is provided since no adverse comment remains for dispute. Affidavit ¶¶ 46-47.

Examiner's comment #4: The examiner stated that during the third scenario, Mr. Morabito did not perform an immediate action step of a procedure to determine whether the LHSI pumps were running, and Mr. Morabito was reminded of this requirement by another operator. Affidavit ¶ 48. Mr. Morabito agrees with the examiner's comment but argues that it does not support a grade of unsatisfactory for competency in compliance/use of procedures. Specification at 18.

Staff Response: Mr. Morabito's failure to perform an immediate action step of the emergency operating procedures is a significant omission since the immediate action steps are required to be committed to memory and

the third scenario provided the only evaluation of his ability to perform the immediate action steps. Affidavit ¶ 50. Consequently, the inadequate knowledge and use of emergency procedures by Mr. Morabito in the third scenario demonstrates a significant deficiency in compliance with and use of procedures and confirms the fourth comment. No reason for a grade change has been provided, especially since the comment is not challenged.

In summary, Mr. Morabito's failure to use prescribed procedures during the simulator examination resulted in (1) a power reduction which masked indications of the boron dilution accident, (2) incorrect analysis of a transient based on an incorrect assumption, and (3) overlooking the operation of the LHSI pumps after reactor trip and SI actuation. These actions show quite clearly unsatisfactory performance in compliance with and use of procedures. Mr. Morabito has not provided any valid reason to question the level of performance recorded by the examiner or the grade for this competency.

(II) Control Board Operations (Tested during the third scenario)
Examiner's comment #1: The examiner noted unsatisfactory performance in this competency when Mr. Morabito misread the RCS wide range pressure indication after SI actuation and incorrectly tripped the reactor coolant pumps. Affidavit ¶ 51. Mr. Morabito attempts to refute this comment by stating that his actions did not threaten the plant safety limits and his performance of the procedure for securing the reactor coolant pumps was flawless. Specification at 18-19; Exhibit S, Attachment B, p. 10.

Staff Response: The fact that Mr. Morabito correctly performed an inappropriate action does not obviate the fact that during a test of his ability to read process instrumentation, he demonstrated his inability to correctly read the instrumentation. Affidavit ¶ 53. Mr. Morabito's argument that he maintained plant safety limits after taking incorrect action does not mitigate the fact that he failed to correctly read the instrument important to the scenario and consequently failed to take proper action for the scenario. The assertions made do not affect the validity of the first comment concerning unsatisfactory control board operation.

Examiner's comment #2: The examiner commented that when procedures called for checking the residual heat release valve, Mr. Morabito looked at the demand indicator for the manual control of the valve rather than the indication lights for the valve and appeared hesitant and confused until another operator explained the controls. Affidavit ¶ 54. Mr. Morabito denies any confusion and explains that his hesitation was based on his reluctance to accept the position of the valve solely on the basis of the demand indication, but he acknowledges the assistance of the other operator. He complains that the examiner was incorrect in stating that there were position indicating lights on the control board. Specification at 19; Exhibit S, Attachment B, p. 10

Staff Response: Contrary to Mr. Morabito's assertions, the fact that he had to be instructed in control board operation and component verification by another operator demonstrates insufficient knowledge of the

instrumentation. Affidavit ¶¶ 56-57. Moreover, the examiner's mistaken belief about the presence of indicator lights does not affect the fact that in this situation, Mr. Morabito did not understand the control board. Id. Thus, no reason has been provided to alter the second comment of unsatisfactory performance at the control board.

Examiner's comment #3: The examiner noted that at a time in the scenario when the two containment sump pumps were to be stopped, Mr. Morabito mistakenly stopped the incore instrument sump pump and only one containment pump, and did not recognize his mistake until shown by another operator. Affidavit ¶ 58. Mr. Morabito argues that he could have discovered his mistake without assistance, and attempts to justify his action by stating it was reasonable to stop the incore instrument sump pump. In addition, he refers to Exhibit U as evidence that he omitted only one of eight required actions. Specification at 20; Exhibit S, Attachment B, p. 11.

Staff Response: Mr. Morabito has not offered any explanation to justify his failure to stop both containment sump pumps or his mistake in operating an incorrect switch, which required another operator to intervene. Affidavit ¶ 60. Similarly, contrary to Mr. Morabito's view, the omission of a step in a procedure conducted from memory without reference to the written procedure demonstrates unsatisfactory performance at the control board. Affidavit ¶ 61. Mr. Morabito's arguments do not refute the examiner's third adverse comment concerning control board operation.

Examiner's comment #4: In this comment the examiner indicated that Mr. Morabito attempted to reset the CIA by depressing the CIA Train B button and the CIB Train A button but the CIA did not reset, and he did not verify CIA reset. Affidavit ¶ 62. Mr. Morabito asserts that he was eventually successful in the CIA reset, but that he was hampered by the lack of indication of CIA reset in the control room, and that, in any event, failure to reset CIA is not safety significant. Specification at 21; Exhibit S, Attachment B, p.11.

Staff Response: Mr. Morabito's argument does not affect the fact that he failed to properly reset the CIA or provide excuse for his inability to adequately operate the control board in this respect. Affidavit ¶ 64. No evidence has been provided to refute the adverse information in comment number 4 concerning control board operations.

In summary, the unsatisfactory rating for Mr. Morabito's competency in control board operation is sustained by his (1) misreading RCS pressure and tripping the RCPs, (2) unfamiliarity with operation of the residual heat release valve; (3) stopping the wrong sump pump, and (4) failure to reset the CIA. Mr. Morabito has presented no evidence or argument in the Specification to demonstrate that the unsatisfactory rating is incorrect.

(III) Supervisory Ability

Examiner's comment #1: The examiner noted that Mr. Morabito failed to recognize that the feedwater regulating bypass valve was open while

diagnosing unusual valve movement in the second scenario. Affidavit ¶ 65. In response to this comment, Mr. Morabito asserts he noticed the open valve but the lack of an alarm and a simulator malfunction hindered his recognition of the problem, yet he maintained control of the B steam generator level. Specification at 21; Exhibit S, Attachment B, p. 11.

Staff Response: The failure to ascertain the cause of the simulated problem is the significant fact in an evaluation of the competency of a candidate who must be able to interpret abnormal parameter readings. Affidavit ¶ 67. Not all problems at nuclear power plants initiate an alarm. Id. Additionally, candidates are instructed to respond to all indications from the simulator. Affidavit ¶ 68. Mr. Morabito's explanations do not address the fact that he failed to recognize an important component failure in the scenario which would have indicated the proper solution to the problem presented. Mr. Morabito's argument does not show that the examiner's first comment was not a valid assessment.

Examiner's comment #2: The examiner's second comment states that Mr. Morabito's generally unsatisfactory use of procedures and crew interaction indicates unsatisfactory supervisory ability. Affidavit ¶ 69. Mr. Morabito counters this statement by claiming it is unsupported. He references Exhibits B-I; V-X, concerning his employment at the Shippingport Atomic Power Station to demonstrate his competency as a supervisor. Specification at 21-22; Exhibit S, Attachment B, p. 11.

Staff Response: Mr. Morabito's failure to use proper procedures, his deficiencies in communication and crew interactions, (discussed infra) and his failure to assist the reactor operators during the scenarios demonstrate his lack of supervisory competency. Affidavit ¶ 71. Mr. Morabito's performance at another plant is not evidence related to his performance at the Beaver Valley plant during his examination. The examiner's second comment is well supported by the deficiencies noted in Mr. Morabito's actions during the three scenarios.

In sum, Mr. Morabito's (1) failure to discover the source of the problem during the second scenario (2) failure to follow procedures, as discussed previously, (3) lack of knowledge of the control board, discussed previously, and (4) inadequate communications and interactions with the reactor operators, discussed below, supports the examiner's unsatisfactory rating for supervisory ability.

(iv) Communications/Crew Interactions

Examiner's comment #1: The examiner stated that in the first scenario after the loss of offsite power, Mr. Morabito failed to wait for verification from the operator that emergency buses were energized, and took inappropriate action on the basis of his mistaken assessment that all AC power was lost. Affidavit ¶ 72. Mr. Morabito objects to this comment and states he observed no energized AC buses when he assessed the situation, and that only after he had decided on action did the diesel generator load. Because of this he argues that his use of the procedure for loss of all AC power was appropriate until he received correct

information from the operator and directed transition to the proper procedure. Specification at 22-23; Exhibit S, Attachment B, p. 12.

Staff Response: Mr. Morabito's explanation does not address the fact that he did not recognize that the diesel generator does not load immediately after loss of offsite power so that his action was not based on a correct assessment of plant conditions. Affidavit ¶ 74. Furthermore, Mr. Morabito failed to ask the operator about the AC buses and consequently failed to use available information prior to taking action. Id. The failure to communicate with the operator prior to taking action on an incorrect understanding of plant conditions demonstrates deficiencies as a senior operator. Id. Therefore, Mr. Morabito's argument is not supportable since not only did he fail to communicate properly with the operator to obtain necessary information, he also indicated his lack of knowledge of the characteristics of a transition to emergency power. The examiner's comment concerning inadequate communication and crew interactions is well founded.

Examiner's comment #2: The examiner's second comment concerns a hand signal from an operator who held two fingers slightly apart to indicate the monitor recording of secondary radiation levels and Mr. Morabito's admission after the scenario ended that he did not understand that communication. Affidavit ¶ 75. Mr. Morabito asserts he did understand the operator's hand signal and that he used no hand signals himself. He claims the Staff's position against hand signals is "biased," that his action based on the hand signal was correct and the examiner's statement about

his understanding of the hand signal is incorrect. Exhibit Y is referenced as evidence that the operator believed Mr. Morabito understood the hand signal. Specification at 23; Exhibit S, Attachment B, p. 12.

Staff Response: In the Staff's view it is self-evident that hand signals are not reliable means of communication in the control room of a nuclear power plant nor a valid means of deciding proper actions for plant control. Affidavit ¶ 77. Mr. Morabito's arguments do not refute the examiner's second comment regarding a clearly inadequate method of transmitting technical information. Moreover, Exhibit Y, an affidavit from the operator describing what the operator believed about Mr. Morabito's understanding, is not evidence about Mr. Morabito's understanding but evidence of the operator's belief. Thus, Exhibit Y does not support Mr. Morabito's assertion. No reason has been provided to alter the adverse comment since hand signals are not accurate means of communication and whether or not Mr. Morabito understood the particular one in question is not relevant to the examiner's comment concerning inadequate communication.

Examiner's comment #3: The third comment by the examiner notes the inadequate communication between Mr. Morabito and an operator concerning RCS hot leg temperatures (previously described in comment #2 concerning compliance/use of procedures). Affidavit ¶ 78. Mr. Morabito repeats his prior argument that he should be evaluated only on his actions but not on thinking aloud. He insists his actions were proper and

that he did not act on his assumption. Specification at 24; Exhibit S, Attachment B, p. 13.

Staff Response: Mr. Morabito not only failed to await the correct information from the operator initially, he also incorrectly analyzed the effects of the transient in progress and improperly anticipated plant parameters. Affidavit ¶ 80. The examiner's third comment concerning communications with the control room crew accurately reflects Mr. Morabito's lack of care in communicating and interacting with other operators. Mr. Morabito has provided no evidence to refute the comment.

In sum, Mr. Morabito's (1) failure to ask the operator for verification of the status of the emergency busses during the first scenario, (2) reliance on a hand signal during the second scenario, and (3) assumption about RCS hot leg temperatures during the second scenario, support the overall rating of unsatisfactory performance in the area of communications/crew interactions during the simulator examination. Mr. Morabito's arguments and explanations do not demonstrate that this rating is incorrect. Therefore, no reason has been provided which challenges the unsatisfactory evaluation.

Specification Comments on NRR Review

At pp. 24-29 of the Specification, Mr. Morabito sets out arguments against the written comments by the Division of Human Factors concerning the review of his examination (Exhibit L) during his appeal of his failing grade. Since these arguments simply repeat those made regarding each

of the examiner's Comments discussed above, no further Staff response was deemed necessary. Affidavit ¶ 81. However, it should be noted that in this part of the Specification Mr. Morabito admits the following errors during the simulator examination: 1) Did not properly diagnose a dilution condition; 2) Tripped the reactor coolant pumps unnecessarily; 3) Did not place a containment sump pump switch in the off position; 4) Did not properly reset CIA. Specification at 30. These admissions support the Staff's adverse assessment of Mr. Morabito's competency in the four areas found unsatisfactory.

C. Summary

Mr. Morabito has provided no reason to change the failing grade he received on Section 6 of the written examination. For the most part, his arguments are simply assertions without supporting evidence, since the many exhibits submitted do not support his arguments. However, the Staff has shown that Mr. Morabito's answers in Section 6 were and are incorrect, except for one part-answer. Moreover, even with the additional points given for one answer to Question 6.03b, the overall grade for Section 6 remains below the 70% required to pass. Mr. Morabito has not shown that any answer he asserts is correct is, in fact, correct. Similarly, Mr. Morabito has not demonstrated that he should have received a passing grade on the simulator examination. To the contrary, Mr. Morabito admits that he made four significant mistakes as described by the examiner. He has presented no convincing explanation for his improper and/or inappropriate actions in three simulated events during the examination. His attempts to minimize the significance of his mistakes give further support to the examiner's failing grade. Most importantly,

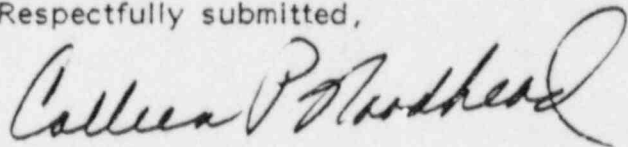
the Specification does not contain evidence sufficient to meet Mr. Morabito's burden of proof in this proceeding that he actually passed the written and simulator examinations and was erroneously denied an SRO license. On the other hand, the Staff has shown that Mr. Morabito's written answers and operator actions were not sufficient to receive a passing grade and consequently, an SRO license. Therefore, Mr. Morabito's claims should be dismissed and the denial of license affirmed.

Finally, in Staff's view, the issues of whether or not Mr. Morabito passed his written and simulator examinations have been thoroughly explained by the pleadings provided so that no oral presentations are necessary.

IV. CONCLUSION

For the reasons set out in the attached affidavit and discussed above, the failing grades on Mr. Morabito's written and simulator examinations and the Staff's denial of a Senior Operator license to Mr. Morabito should be affirmed.

Respectfully submitted,

A handwritten signature in cursive script, reading "Colleen P. Woodhead".

Colleen P. Woodhead
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 9th day of October, 1987

Stop 1409

U. S. NUCLEAR REGULATORY COMMISSION
SENIOR REACTOR OPERATOR LICENSE EXAMINATION

FACILITY: BEAVER VALLEY 1&2

REACTOR TYPE: PWR-WEC3

DATE ADMINISTERED: 86/07/22

EXAMINER: SILK, D.

APPLICANT:

A. J. Moralito

INSTRUCTIONS TO APPLICANT:

Use separate paper for the answers. Write answers on one side only. Staple question sheet on top of the answer sheets. Points for each question are indicated in parentheses after the question. The passing grade requires at least 70% in each category and a final grade of at least 80%. Examination papers will be picked up six (6) hours after the examination starts.

CATEGORY VALUE	% OF TOTAL	APPLICANT'S SCORE	% OF CATEGORY VALUE	CATEGORY
25.00	25.00	21.9	87.6	5. THEORY OF NUCLEAR POWER PLANT OPERATION, FLUIDS, AND THERMODYNAMICS
25.00 22.6	25.00	13.5	59.7	6. PLANT SYSTEMS DESIGN, CONTROL, AND INSTRUMENTATION
25.00 24.5	25.00	20.90	85.3	7. PROCEDURES - NORMAL, ABNORMAL, EMERGENCY AND RADIOLOGICAL CONTROL
25.00	25.00	24.07	96.3	8. ADMINISTRATIVE PROCEDURES, CONDITIONS, AND LIMITATIONS
100.00	100.00			TOTALS

FINAL GRADE 82.2 %

All work done on this examination is my own. I have neither given nor received aid.

A. J. Moralito
APPLICANT'S SIGNATURE

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ADMINISTRATIVE JUDGE

In the Matter of

ALFRED J. MORABITO

(Senior Operator License for
Beaver Valley Nuclear Power
Station, Unit 1

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Docket No. 55-60755

JOINT AFFIDAVIT OF BARRY S. NORRIS AND DAVID M. SILK

Barry S. Norris and David M. Silk do depose and say:

1. I, Barry S. Norris, am a Senior Operations Engineer (Examiner/Inspector), in the Pressurized Water Reactor Section, Operations Branch, Division of Reactor Safety at the United States Nuclear Regulatory Commission, Region I. At the time of the examination of Alfred J. Morabito my position was Reactor Engineer (Examiner) within Section 1C of the Division of Reactor Projects. My responsibilities relative to that examination were as the certified examiner observing David M. Silk's administration of the simulator and oral examinations. I was responsible for the quality assurance review of the grading of the written examination, and I assisted in proctoring that examination. My professional qualifications are attached.
2. I, David M. Silk, am an Operations Engineer (Examiner/Inspector) in the Pressurized Water Reactor Section, Operations Branch, Division of Reactor Safety at the United States Nuclear Regulatory Commission, Region I. At the time of the examination of Alfred J. Morabito

my position was Reactor Engineer (Examiner) within Section 1C of the Division of Reactor Projects. My responsibilities relative to that examination were that I prepared, administered, and graded the written examination and administered the oral and simulator examinations under the observation of Barry S. Norris. My professional qualifications are attached.

3. The NRC examination for operator candidates under 10 C.F.R., Part 55, consists of a written examination, a simulator examination, and an oral examination. Written examinations are prepared by an NRC examiner in accordance with NUREG-1021, "Operator Licensing Examiner Standards," and NUREG-1122 "Knowledges and Abilities Catalog for Nuclear Power Plant Operators," and based upon facility licensee reference material. Each of the written examination questions administered to candidates at the Beaver Valley Plant Unit 1 on July 22, 1986 was checked by a second examiner and the Section Chief for technical accuracy, adequate subject coverage, relevance to safe operation of a nuclear power plant, content validity, and to ensure regulatory requirements are satisfied. After the administration of the examination, the facility licensee reviewed the examination for technical accuracy and recommended changes or additions to the answer key based upon the plant-specific features of the facility. These comments were resolved to the mutual understanding of the NRC and facility licensee. The grading of the set of examinations was checked by a second examiner and the Section Chief to ensure consistency and accuracy in grading. To receive a passing grade, the candidate must attain an overall score of 80%, and receive at

least a 70% in each of the four sections of the written examination. Mr. Morabito was tested for a Senior Reactor Operator license as an "SRO Instant", which is a candidate who has not previously been licensed as a reactor operator at that facility. Although Mr. Morabito received an overall score in excess of 80%, he received less than a 70% on Section Six of the written examination.

4. In addition to the written phase, the examination consists of an oral walk-through of the plant with the candidate and a simulator examination. Mr. Morabito passed the oral walk-through and failed the simulator examination.
5. Simulator examinations are developed by the NRC to examine usually three candidates simultaneously during three or four different scenarios, on a plant specific simulator. Each candidate is evaluated by an examiner, observing the candidate to determine whether candidate responses are satisfactory, marginal or unsatisfactory in eight areas of competency. Based on the candidate's performance, an unsatisfactory evaluation in any one competency area may be considered an adequate basis for failing the simulator examination. All unsatisfactory evaluations made on the simulator examination require written justification. Mr. Morabito received an unsatisfactory evaluation in four of the eight competencies.
6. Although Mr. Morabito provided comments relative to sections of the written examinations that he passed, the staff has only analyzed Mr. Morabito's answers, relative to Section 6 as this is the only section in the written examination that he failed. The question, answer key, candidate response and argument, and staff evaluation follow:

The Written Examination Section 6:

7. Question 6.03b: What three design features of the component cooling water system minimize the effects of a rupture of the RCP thermal barrier: (Point Value: 1.5; Grade: 0.5).

Answer Key: High flow will cause RCP thermal barrier CCR outlet valves to close; pressure buildup will seat check valve; piping between valves is designed for 2485 psig.

8. Candidate Answer

The answer provided on the day of the examination was:

"1) Automatic trip close of thermal barrier CCR inlet valves on high flow, 2) ability to manually isolate the thermal barriers, 3) auto backup pump start on decreasing CCR pressure, 4) separation of thermal barrier CCR supply from pump motor and lube oil cooling supply."

Mr. Morabito argues in the Specification that his responses 2) and 4) are among several correct answers but that the examiner's key listed only three design features.

9. Staff Response

The candidate's first response includes incorrect information about the proper location (inlet versus outlet) of the automatic valves with respect to the thermal barrier heat exchanger. The candidate was given credit for this response even though it contained incorrect information.

10. The candidate's second answer that the thermal barrier can be manually isolated does not answer the question. The capability to manually isolate the component does not, in and of itself, minimize the

effects of a rupture of the thermal barrier. A containment entry, which is a lengthy and involved process, would be required to isolate the component and would not provide immediate reduction in the severity of the rupture.

11. Isolation valves are normally designed to allow maintenance on a component and not to minimize the effects of a component failure.
12. The candidate's third response is incorrect and shows a significant conceptual error on the part of the candidate. If a thermal barrier rupture occurs, the reactor coolant (being at a much higher pressure, 2235 psig) would leak into the component cooling water system thus increasing its pressure. The auto backup pump starts on decreasing system pressure not on increasing pressure.
13. The candidate's fourth response concerns separation of the thermal barrier cooling water supply. The candidate supplied no documentation to support his answer. A literature search and discussions with technical experts conducted by the NRC staff did not identify any written documentation supporting the candidate's position. The Beaver Valley Training Department did not recommend any changes to the answer key during the examination review indicating that they expected that a candidate who had completed their training program would respond to the question with the information in the answer key.
14. However, discussions with engineers at the Westinghouse Reactor Coolant Pump Engineering Group, the Pressurized Water Reactor Section at the NRC Technical Training Center, and the NRR Plant System Branch indicates that the separation of the thermal barrier

component cooling water supply from the pump motor and the lube oil cooling supply was a consideration in the design. Based on these discussions the candidate was given credit for his fourth response.

15. The credit assigned to the candidate's responses was determined to be 0.75 points based on only two of four correct responses being provided. This value was determined by taking the total number of correct answers divided by the total number of answers supplied. Thus, although it was initially determined that a candidate giving three design features would result in giving full credit, a candidate who listed 4 or 5 would be assigned a proportional value of the percentage of the number correct. This method of determining the assignment of credit to a question is routinely used by examiners to account for "shot gun" answers where incorrect information and indiscriminate guessing is listed along with responsive information.
16. Question 6.06a: What is used to control RCS pressure during cold solid plant operations? (Point Value: 0.4; Grade: 0.)

Answer Key: Letdown pressure control valve.

17. Candidate Answer

The answer provided on the day of the examination was: "The overpressure protection system. Two PORV's keyed to A loop and C loop WR pressure transmitters." Mr. Morabito argues that the question did not ask for "normal control" of RCS pressure but only for "control" and also that the word "what" in the question is very ambiguous. He asserts that his answer is correct.

18. Staff Response

The candidate's response that the over pressure protection system provides control of the reactor coolant system pressure during cold plant operation is incorrect. The over pressure protection system provides over pressure protection and does not provide pressure control. During cold solid plant operations pressure is adjusted and controlled using the letdown pressure control valve.

19. A safe operator would not be expected to misinterpret the question since he should understand the difference between control systems and protection systems. The staff does not consider the word "what" to be ambiguous. The Beaver Valley Training Department did not recommend any changes to the answer key during the examination review, indicating that they expected that a candidate who completed their training program would respond to the question with the information in the answer key. No credit was given to this answer.

20. Question 6.06b: What three plant conditions provide inputs to the interlocks associated with RHR suction valve MOV-RH-701? Setpoints are required. (Value: 1.5; Grade 1.5 by examiner, 1.3 by regrade.)

Answer Key: Will not open at RCS pressure greater than 430 psig. Will auto close at RCS pressure greater than 630 psig. Will not open if pressurizer vapor temperature greater than 475 F.

21. Candidate Answer

The answer provided on the day of the examination was: "Pressurizer temperature less than 470 degrees. A loop wide range pressure less than 430 psig. A loop wide range pressure more than 630

psig." This answer was not appealed for NRR review. For the pressurizer temperature setpoint the examiner wrote in the correct setpoint number, 475, but did not delete points. The regrader deleted 0.2 points for the incorrect number. Mr. Morabito argues this regrade was petty and vindictive.

22. Staff Response

The candidate's temperature set point was incorrect and partial credit was deducted during the regrade because an incorrect knowledge of the set point would not allow the candidate to recognize when the interlock should be activated, and since the set point is not addressed directly in the procedure, could result in inappropriate valve positioning. During an appeal, the objective is to ensure that the candidate was graded fairly and correctly. Points are routinely deducted during the regrading process where, as here, the staff feels that a candidate initially was awarded points inappropriately. Examiners unassociated with the initial testing and grading are used during the regrading process to avoid even the appearance of vindictive conduct on the part of the challenged examiner.

23. Question 6.07a: Why is the operability of the steam generator code safety valves important during power operation? (Point Value: 0.5; Grade: 0.)

Answer Key: Ensures that secondary system pressure will be limited to within its design pressure during the most severe transient.

24. Candidate Answer

The answer provided on the day of the examination was: "They provide the first means of protection for Tavg increases above

program to prevent violating the safety limit curve." This answer was not appealed to NRR. Mr. Morabito asserts his answer is correct based on Exhibit K to his Specification (Duquesne Light Company Nuclear Division Training Manual), p. 44 ¶4 and Attachment 1. The section referenced states:

"Steam generator safety valves provide protection from exceeding [reactor core safety limit of 2250 psia]."

25. Staff Response

The candidate's response that the steam generator code safety valves are the first means of protection for the T average increases above the program value is incorrect. The normal first response to a high T average is control rod motion. In addition, Exhibit K, which is a lesson plan from a requalification program conducted in 1984, explains five plant design features which provide T average protection before operation of the steam generator safety valves; additionally Exhibit K states explicitly that T average protection is only provided by the steam generator safety valves at low power levels. The reference to Exhibit K does not support the answer provided by the candidate because it indicates that the steam generator safety valves provide a secondary or tertiary protection for T average in a limited range of power levels.

26. The Beaver Valley Training Department did not recommend any changes to the answer key during the examination review, indicating that they expected that a candidate who had completed their training program would respond to the question with the information in the answer key. No credit was given to this answer.

27. Question 6.07b: Give two reasons (NOT CONDITIONS) why the MSIV's are required to close during a steam line rupture. (Point Value: 1.0; Grade: 0 by examiner; question deleted after regrade; question reinstated by NRR and 0.5 points given.)

Answer Key: 1. Minimize positive reactivity effects of RCS cooldown associated with the blowdown. 2. Limit pressure rise within containment during a steam break in containment.

28. Candidate Answer

The answer provided the date of the examination was: "1) to isolate the faulted steam generator; 2) to prevent blowdown of the non-faulted steam generators through the break."

29. Mr. Morabito argues that, contrary to the assessment of the NRC staff, his answers are not redundant, and refers to Exhibit M (BVPS Updated Final Safety Analysis Report, pp. 10.3-2 and 10.3-5) as support. He also describes an accident in which one main steam header ruptures between the main steam isolation valve and the non-return valve to demonstrate that his two answers are different ones.

30. Staff Response

The question asks for two reasons the MSIV's are required to close during a main steam line break. The candidate gives two answers that he states are different. In fact, in both cases, whether the MSIV shuts as the primary isolator of a leak or as the backup to a non return valve, it is still shutting to isolate the leak, and both answers are essentially the same.

31. Question 6.09a: What two simultaneous conditions will cause the quench spray flow cut-back valves (MOV-1QS-103A,B) to close? (Point Value: 0.8; Grade C.4.)

Answer Key: Associated quench spray pump running; RWST low low level.

32. Candidate Answer

The answer provided the day of the examination was: "One hour running time elapsed, RWST level at setpoint."

33. Mr. Morabito asserts that the NRC answer to this question is incorrect and that the proof that his answer is correct is shown by Exhibit N (1977 Beaver Valley, Unit 1 "Analysis and System Modification for Recirculation Spray and Low Head Safety Injection Pumps Net Position Suction Head").

34. Staff Response

The answer in the answer key is taken directly from the Beaver Valley Operating Manual Chapter 13.1. The Beaver Valley Training Department provided no corrections or additions to the answer key. The candidate in his specification does not address the conditions for which the cut-back valves close and inappropriately references the NRC answer to Question 6.09b. Exhibit N provides design basis information but does not address the interlocks on the cut-back valves. The candidate has not provided any additional information which would support changing the grading of his answer for Question 6.09a.

35. The candidate's arguments appear to be directed to question 6.09b for which he was given full credit during the review of his examination by Region I.
36. As a result of staff evaluation and a regrade of the written portion of Mr. Morabito's exam during the Administrative Appeal the candidate's point total for Section 6 was increased from 13.5 to 15.4 points. As a result of the latest regrade the point total for Question 6.03b was increased by 0.25 points from 0.5 to 0.75 points. No other changes were made to the point totals of any other question. The candidate's score is therefore $(15.4 + 0.25)/22.6 = 69.2\%$. Mr. Morabito still fails Section 6 and thus fails the written portion of the examination.

37. The Simulator Examination:

The three scenarios on which Mr. Morabito and two other candidates were tested were: (1) a boron dilution accident followed sequentially by a vacuum breaker leak, pressurizer reference signal failure, erratic governor valve control, and station blackout; (2) the B spray valve failed closed and the Tave (temperature average) input to steam dumps failed low followed sequentially by B loop FRV (feed-water regulating valve) bypass fails open, loop 3 Th (hot leg temperature) fails high, turbine governor valves fail closed, PORV Lock valve failed open for 455D due to a breaker problem and Pzr (pressurizer) PORV 445D failed open; and (3) PRNI (power range nuclear instrument) (44) fails high followed sequentially by S/G (steam generator) tube leak (developing into a rupture), pzr level

failed high, FWP-1A trip from 75% power, and "A" HHSI (high head safety injection) pump fails to auto start on low pressure SI.

38. The object of the scenarios is to test the competencies of the candidates in eight areas during (a) normal evolutions (b) instrument failures (c) component malfunctions and (d) major transients in accordance with NUREG-1021, ES302. The scenarios are developed based on information from the licensee concerning the design of the plant as well as the capabilities of the simulator. The Staff develops the scenarios to reflect actual or anticipated events. The scenarios are designed to last about an hour each. The four competencies Mr. Morabito failed are discussed as follows.

Compliance/Use of Procedures

39. Examiner's Comment No. 1

During the first scenario Mr. Morabito did not consult any procedure when decreasing load to check power range indicator response of two power range indications that were lower than the other two. AOP-10 calls for the plant to be in Mode 3 if two power range channels are malfunctioning.

40. Answer

Mr. Morabito states he did not consider two power range channels inoperable and ordered a small power reduction, for which no procedure is required, to determine whether the instruments were faulty. Having determined the instruments were not faulty, Mr. Morabito halted the power reduction.

41. Staff Response

The candidate ordered a 10% load decrease to investigate a suspected instrumentation problem. The candidate, in effect, performed an unauthorized test of instrumentation accuracy. If an instrument malfunction was suspected the candidate should have referenced an abnormal operating procedure or requested a surveillance procedure be conducted to verify the accuracy of the instruments. A basic tenet of safe operations is to believe all indications unless they can be proven incorrect by prescribed procedures.

42. Because Mr. Morabito did not use the proper method to verify the instrumentation, the symptoms of the dilution accident were masked by the decrease in load and he was unable to identify the accident in progress. Therefore, he was not able to identify a condition which was changing the reactivity of the reactor in an unsafe direction.

43. Examiner's Comment No. 2

During the second scenario while in ES-1.2 step 27 candidate asked "Are RCS hot leg temperatures greater than 395°F?" Candidate did not wait for an operator response and assumed the answer to the question was "yes" by answering "yes" aloud to himself. The operator then indicated the answer to the question was "no."

44. Answer

Mr. Morabito asserts that the action taken was correct and his remark prior to the operator's answer is insignificant.

45. Staff Response

The candidate provided no information to refute the observation of the examiner. A review of the candidate's examination and appeal

comments indicates that during the operating examination he incorrectly assumed reactor coolant hot leg temperature was greater than 395° F. The candidate's comments indicate an incorrect analysis of the effects of the transient in progress and an improper attempt to analyze an event instead of using the symptomatic approach provided by the emergency procedures.

46. Examiner's Comment No. 3

Mr. Morabito asserts this comment was deleted during the regrade/review process. Thus there appears to be no issue regarding this comment.

47. Staff Response

No new information was provided by the candidate.

48. Examiner's Comment No. 4

During third scenario, after the reactor tripped and SI actuated, candidate did not check if LHSI pumps were running as required by immediate action step 11b of E-0, SRO had to remind candidate to check if LHSI pumps were running.

49. Answer

Mr. Morabito admits the comment is valid but asserts that it is not sufficient to support a grade of unsatisfactory for this category.

50. Staff Response

The candidate agrees this comment is valid. Immediate actions are required to be committed to memory and are to be performed without reference to the procedure. Proper performance of the immediate actions of the emergency operating procedures is a mandatory requirement for a safe operator. The candidate's inability to perform this step is significant since this was the only evaluation made of the

candidate's ability to properly perform the required immediate actions of the emergency procedures as a control board operator.

Control Board Operations (third scenario only)

51. Examiner's Comment No. 1

Following SI actuation as the RCS pressure was decreasing the candidate misread RCS wide range pressure indication. Candidate misread 1600 psig as 1040 psig and then checked with other operator to confirm RCP trip criteria.

52. Answer

Mr. Morabito asserts that his actions maintained the plant within safety limits and he performed the complex procedure for securing the reactor coolant pumps flawlessly.

53. Staff Response

A review of the candidate's examination and appeal comments indicates that he incorrectly tripped reactor coolant pumps due to misreading the reactor coolant system pressure instrument. The fact that he maintained plant safety limits is not relevant because the candidate was being evaluated on his ability to properly read process instrumentation. Additionally, the fact that he performed an evolution correctly is immaterial considering that the evolution should not have been performed. The candidate's tripping of the Reactor Coolant Pumps because he misread reactor coolant pressure clearly demonstrated his inability to read an important process instrument.

54. Examiner's Comment No. 2

In Step 4c of E-3, the residual heat release valve was to be checked to ensure it was closed. Candidate was looking at the demand

indicator for the manual control of residual heat release valve and not at the indication lights for the valve. Candidate was hesitant to respond to the check verification and appeared confused until other operator came over and explained the controls and indications to the candidate.

55. Answer

Mr. Morabito asserts that he was not confused but only hesitant to verify the position of the valve based on the demand indication for the valve alone, and that the conference with the balance of plant operator helped. He asserts that it is significant that the examiner mistakenly thought there was position indicating lights.

56. Staff Response

A review of the candidate's examination and appeal comments indicates that the candidate hesitated and conducted a discussion with another operator prior to completing a verification step in the emergency procedures. The hesitancy and discussion with another individual indicates a lack of familiarity with control board layout and the policy for completion of the emergency procedure verification step.

57. The lack of an indication light is not relevant because the candidate was being evaluated on his knowledge of the control board indications and his ability to complete a verification step without supervision. The fact that the candidate did not immediately realize that the demand signal was the only method for verification of valve position supports the unsatisfactory evaluation of his control board operations.

58. Examiner's Comment No. 3

In Step 9 of E-3, the containment sump pumps were to be stopped. Candidate stopped one containment sump pump and the incore instrument sump pump. The other operator came over to show the candidate where the other containment sump pump switch was located.

59. Answer

Mr. Morabito asserts that even though he turned the wrong switch, he would have discovered his mistake without the other operator. He also states that his action was precautionary since there is no reason to expect that the containment sump pump will start when the safety injection or containment isolation signals are reset. He also offers Exhibit U (Step Description Table for E-3) to show that he missed only one of eight actions prescribed.

60. Staff Response

A review of the candidate's examination and appeal comments indicates he did operate an incorrect switch and his mistake was identified by another operator. Even though the candidate's actions did not degrade plant conditions, the fact that he incorrectly repositioned a wrong switch without noting his mistake supports the unsatisfactory evaluation of his control board awareness.

61. The missing of a single step in a procedure that is being conducted from memory is significant. The Beaver Valley Operations Department allows its operators to conduct control board operations without procedures when they are fully familiar with all the required steps. The candidate, by attempting to conduct the step in the emergency procedure without reference to the procedure or supervisory

guidance, and missing a procedural step, was operating outside the guidance set by his facility.

62. Examiner's Comment No. 4

In Step 11 of E-3, CIA was to be reset. Candidate depressed the CIA Train B button and the CIB Train A button. CIA did not reset. Candidate did not verify CIA was reset following his attempt to reset CIA.

63. Answer

Mr. Morabito states that he did reset the CIA at the end of the scenario, and that there is no indication in the control room of successful reset of CIA, and failure to properly reset CIA is not safety significant.

64. Staff Response

A review of the candidate's examination and appeal comments indicates that the candidate failed to properly reset CIA when directed by the shift supervisor. Even though plant conditions were not degraded, the fact that the candidate was unable to properly accomplish a procedural step is indicative of his unsatisfactory ability to operate the control board.

Supervisory Ability

65. Examiner's Comment No. 1

In the second scenario, the candidate did not notice that the feed reg bypass valve indicator was indicating that the valve was open during diagnosis of unusual feed reg valve movement.

66. Answer

Mr. Morabito states that he was the first to notice the open valve; that there was no alarm to call his attention to a problem; the simulator malfunctioned, but his actions were effective since control of B steam generator level was maintained.

67. Staff Response

A review of the candidate's examination, appeal comments and examiner's notes indicates that a problem with steam generator feed flow was recognized by the candidate, but the root cause of the problem was not aggressively pursued and was not identified for twenty minutes. The fact that there were no alarms to draw the candidate's attention to the incorrectly positioned valve is irrelevant since many problems encountered at nuclear power plants do not initiate an alarm but must be identified from abnormal parameter readings.

68. The malfunctioning of the simulator is irrelevant since the candidate was instructed to respond to all indications as he would in the actual control room. A basic tenet of nuclear power plant operations is to believe all indications until they can be proven incorrect by other indications. The candidate's belief that indications were incorrect without extensive verification of all other parameters is inconsistent with the safe operation of a nuclear power plant.

69. Examiner's Comment No. 2

Unsatisfactory use of procedures and unsatisfactory crew interaction supports an unsatisfactory performance in supervisory ability.

70. Answer

Mr. Morabito claims the examiner's statement is unsupported and offers Exhibits B-I; V-X as evidence of his supervisory ability while employed at the Shippingport Atomic Power Station.

71. Staff Response

A review of the candidate's examination and appeal comments indicates that the candidate's actions and communications observed during the simulator examination displayed a callousness to procedures and less than precise communications. For example, the candidate incorrectly entered the emergency operating procedures after he misdiagnosed a loss of all AC power, he conducted procedural steps from memory which resulted in two errors, and he inappropriately allowed the use of a hand signal for communication of radiation levels. In one instance the candidate was not aware that his reactor operator was having difficulty maintaining rod insertion limits and controlling Tave during a load reduction which was complicated by a dilution accident as evidenced by a low rod insertion limit alarm followed later by a loop Tave high alarm. Thus the candidate offered no supervisory assistance to his operator.

Communications/Crew Interactions

72. Examiner's Comment No. 1

During the first scenario, following the loss of offsite power, the candidate went to ECA-0.0 when he mistakenly observed that he had no emergency busses energized. Candidate should have relied upon verification of emergency busses from his operator who did properly

verify that one emergency bus was energized and informed the candidate as much.

73. Answer

Mr. Morabito argues that this comment should be deleted because there were no AC busses energized when he assessed the situation. He claims that after the only available diesel generator was up to speed did it then close onto the bus and load. He asserts that he observed the symptoms for loss of all AC power and directed performance of ECA-0.0 in accordance with his observation but that after receiving information from the operator, he properly directed transition to E-0 and maintained safe plant conditions.

74. Staff Response

A review of the candidate's examination and appeal comments indicates that during a loss of off site power where a diesel generator started and loaded as designed, the candidate entered the emergency operating procedures incorrectly in that he went to ECA-0.0, Loss of All AC Power, instead of E-0, Reactor Trip/Safety Injection. This is because he did not request verification by the board operator. Mr. Morabito failed to recognize the diesel generator does not load for approximately 10 seconds after loss of offsite power. This oversight was compounded by his failure to obtain information from the operator. Senior operators are responsible for using all available sources of information to ensure proper action.

75. Examiner's Comment No. 2

During the second scenario, Step 6 of E-1 calls for checking secondary radiation levels. An operator checked the monitors and said

"One indicator is about this much (holding fingers about 1/2 to 1 inch apart) higher than normal." Candidate proceeded in E-1. During followup questioning after the scenario the candidate admitted misunderstanding the operator's report of secondary radiation levels and assumed there was no reason to go to E-3.

76. Answer

Mr. Morabito claims that he understood the hand signal given; but that he [Mr. Morabito] spoke aloud and used no hand signals. He claims that the NRC staff's prior comment (Exhibit L) that hand signals are unsatisfactory is biased judgment; and that his action after receiving the hand signal was proper. He offers Exhibit Y to show that the operator believed Mr. Morabito understood the hand signal at the time.

77. Staff Response

A review of the candidate's examination and appeal comments indicates that the candidate relied on hand signals to reach a decision whether secondary radiation was consistent with pre-event levels. Hand signals are not a reliable means of communications in the control room of a nuclear power plant. The examiner's comment regarding Mr. Morabito's misunderstanding the hand signal is based on a verbal statement by the candidate.

78. Examiner's Comment No. 3

During second scenario, while in ES-1.2 step 27, the candidate asked, "Are RCS hot leg temperatures greater than 395°F?" Candidate did not wait for an operator response and assumed the answer

to the question was "yes" and answered "yes" aloud to himself. The operator then indicated the answer to the question was "no."

79. Answer

Mr. Morabito states that it is only actions, not words on which he should be judged; that he should not be criticized for thinking aloud since his performance was based on the information from the operator, not his advance expectation.

80. Staff Response

A review of the candidate's examination and appeal responses indicates that the candidate verbalized an incorrect assumption prior to receiving the correct information from the control board operator. The candidate's comment indicates an incorrect analysis of the effects of the transient in progress and an improper anticipation of plant parameters based on an attempt to analyze an event.

81. We have reviewed the arguments in the specification at pp. 24-29 concerning the NRR review comments on the simulator examination. We believe these arguments are repetitions of the arguments addressed above. Therefore, we have not addressed them separately.

82. Summary

Based on the previous discussion, and for the reasons explained, it is our opinion that Mr. Morabito's performance on both the written and simulator examinations was not adequate to receive a passing grade and that there is no basis to change the failing grade or to issue him an SRO license.

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83. The foregoing and attached statements of professional qualifications are true and correct to the best of our knowledge and belief.

Barry J. Norris
Barry J. Norris

David M. Silk
David M. Silk

Subscribed and sworn to before me
this 9th day of October, 1987.

Michael A. Perkins
Notary Public

My Commission expires: March 26, 1989



Barry S. Norris
Senior Operations Engineer

EXPERIENCE:

August 1987 - Present

U. S. Nuclear Regulatory Commission
King of Prussia, Pennsylvania 19406

Senior Operations Engineer (previously Lead Reactor Engineer).

Coordination of all activities associated with the examination process for all Region I Babcock & Wilcox and Combustion Engineering facilities and all nonpower reactor facilities. Examination of applicants as detailed below. Certified as an NRC Examiner on Combustion Engineering technology in accordance with NUREG 1021.

May 1985 - August 1987

Reactor Engineer (Examiner)

Examination of applicants for Reactor Operator and Senior Reactor Operator licenses in accordance with 10 CFR 55; process includes the preparation, administration and grading of written, simulator and oral examinations. Certified as an NRC Examiner on Westinghouse, Babcock & Wilcox, and nonpower technologies in accordance with NUREG 1021.

August 1981 - May 1985

Houston Lighting & Power, Co.
South Texas Project, Bay City, Texas 77414

Senior Quality Assurance Specialist-Systems

Coordination of the client's Project QA audit and training/certification programs, including preparation and conduct of training classes. Assist in the development and review of HL&P's and contractors' QA programs and procedures. Certified Lead Auditor per ANSI N45.2.23/RC 1.146.

June 1980 - August 1982

Gilbert/Commonwealth, Inc.
Reading, Pennsylvania 19603

Quality Assurance Specialist-Electrical

Develop and review procedures and technical specifications for instrumentation/control and fire signaling systems. Coordination, preparation, and presentation of QA/QC courses for both internal training and client organizations - Foundations of QA/QC, Basic PWR/BWR Technology, Fire Protection, Auditor, and Instructional Techniques. Consulted with clients for establishment and implementation of quality assurance programs. Certified as Auditor per ANSI N45.2.34/RC 1.146, and Level II Electrical Inspector per ANSI N45.2.6/RC 1.58.

April 1977 - May 1980

U. S. Navy Nuclear Power Training Unit - 836
Batlston Spa, New York 12020

Training Coordinator

Manage the training of thirty students commencing every three months; scheduling watches, maintenance of records and performance appraisals. As Engineering Watch Supervisor, directed propulsion plant watchstanders during all normal and casualty operations, and radiological situations.

Reactor Controls Division Leading Petty Officer

Supervised seven staff instructors in preventive and corrective maintenance of reactor controls and instrumentation. Instructed students, both in the classroom and on an operating reactor plant, in reactor theory and operations. Directed the qualification efforts of reactor operator students. As a Reactor Operator, was directly responsible for safety of the reactor plant during operating and shutdown conditions.

May 1974 - March 1977

USS Sargo (SS(N) 583)
Pearl Harbor, Hawaii 96601

Reactor Operator & Engineer's Administrative Assistant

Stood watch as Reactor Operator during operating and shutdown conditions on a shipboard reactor plant. Maintained training and technical records for engineering department. Engineer's assistant during a major shipyard overhaul, during which numerous technical modifications and test were performed and all watchstanders were trained and requalified.

August 1971 - April 1974

Naval Nuclear Program Trainee

ASSOCIATIONS & CERTIFICATIONS:

1986	NRC High Quality Certificate
1983	American Nuclear Society (Member)
1981	American Society for Quality Control Treasurer of local chapter Certified Quality Engineer #E-8575 (12/81)
1981	U. S. Naval Reserve (Drilling)

EDUCATION & TRAINING:

1987	U. S. Nuclear Regulatory Commission Combustion Engineering Systems Technology (80 hours classroom and 40 hours simulator) Pre-Supervisory Orientation Course (40 hours self-study & 16 hours classroom)
1986 - 1987	U. S. Nuclear Regulatory Commission Babcock & Wilcox Systems Technology (80 hours classroom, 40 hours simulator)

EDUCATION & TRAINING cont.

1985 - 1986	U. S. Nuclear Regulatory Commission Westinghouse Systems Technology (160 hours classroom, 48 hours simulator)
1983	Houston Lighting & Power, Co. South Texas Project. Oral Presentation Skills (16 hours classroom)
1982 - 1985	University of Houston, Victoria Pursuing course of study towards MBA
1982	Bechtel Energy Corporation South Texas Project Field Welding Upgrade Course (60 hours classroom)
1981	Gilbert/Commonwealth, Inc. Reading, PA Lead Auditor Training Course (40 hours classroom)
1971 - 1974	Naval Electronics Technician School (10 months) Naval Nuclear Power School (6 months) Naval Nuclear Power Prototype (6 months)
1971 B.S.	Ursinus College Collegeville, Pennsylvania Major - Math

David M. Silk
Operation Engineer (Examiner)

EXPERIENCE:

U. S. Nuclear Regulatory Commission
King of Prussia, Pennsylvania 19406

August 1986 to Present

Operations Engineer, Reactor Engineer,
(Examiner)

As a certified Westinghouse examiner, served in the capacity of examiner or chief examiner for examinations administered on seven examination trips. Responsibilities included preparing, administering and grading of written, simulator, and operating examinations.

January 1986 to July 1986

Reactor Engineer (Examiner).

Prepared written examinations for three Westinghouse plants to meet qualification requirements. Observed certified examiners conducting simulator and oral examinations. Conducted simulator and oral examinations while under the observation of certified examiners. Certified as an NRC Examiner on Westinghouse technologies in accordance with NUREG-1021.

August 1985 to December 1985

Reactor Engineer (Examiner).

Prepared and administered written and oral examinations for nonpower reactors. Certified as an NRC Examiner for nonpower technologies in accordance with NUREG-1021.

January 1985 to July 1985

Reactor Engineer (Examiner).

On the job training at Sequoyah Nuclear Power Plant (TVA). Observed the activities of Operations, Training, Maintenance, Instrumentation and Control, Nuclear Engineering, Compliance, Health Physics and Rad waste.

January 1984 to December 1984

Reactor Engineer (Examiner).

Indoctrination to NRC.

TRAINING AND EDUCATION:

June 1987 - USNRC Combustion Engineering System Technology
(80 hours classroom).

April 1987 - USNRC Westinghouse Operator Licensing Refresher Simulator Course
(40 hours).

July 1985 - October 1985 - USNRC Westinghouse Systems Technology Series.
(160 hours classroom, 48 hours simulator).

October 1984 - USNRC PWR and BWR Introductory Class (80 hours classroom).

May 1984 - Graduated from Pennsylvania State University with a Bachelor of
Science degree in Nuclear Engineering.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE ADMINISTRATIVE JUDGE

In the Matter of)	
)	
ALFRED J. MORABITO)	Docket No. 55-60755
)	
(Senior Operator License for)	
Beaver Valley Nuclear Power)	
Station, Unit 1))	

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF RESPONSE TO SPECIFICATION OF CLAIMS" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class, or as indicated by an asterisk through deposit in the Nuclear Regulatory Commission's internal mail system, this 9th day of October, 1987:

Charles Bechhoefer, Esq.
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555*

Alfred J. Morabito
685 Tulip Drive
New Brighton, PA 15066

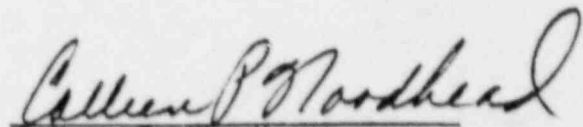
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
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USNRC, Region I
631 Park Avenue
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Atomic Safety and Licensing Appeal
Board Panel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555*

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

Dr. David L. Hetrick, Professor
Department of Nuclear and
Energy Engineering
University of Arizona
Tucson, Arizona 85721


Colleen P. Woodhead
Counsel for NRC Staff

Staff's 1 - 4

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