

STATE OF NEW JERSEY

In the Matter of William Bruzzichesi,	FINAL ADMINISTRATIVE ACTION OF THE CIVIL SERVICE COMMISSION
Various Jurisdictions	Examination Appeals
CSC Docket Nos. 2018-1659, <i>et al.</i> : :	
	: ISSUED: April 2, 2018 (RE)

William Bruzzichesi, Fire Captain (PM1020V), Belleville; Joseph Cavanagh, Fire Captain (PM1037V), Harrison; Christian Hamilton, Fire Captain (PM1048V), Nutley; John Judge, Fire Captain (PM1056V), Ridgewood; and Patrick Lento Jr. and William Devenny, Fire Captain (PM2177V), Ventnor City, appeal the correct responses to various questions on their respective promotional examinations. These appeals have been consolidated due to common issues presented by the appellants.

It is noted for the record that this two-part examination consists of a written multiple-choice portion and an oral portion. The written portion of the examination included eight scenarios, each with a description and various accompanying diagrams, and candidates were required to answer questions pertaining to each scenario. The appellants challenge the correct responses to questions 2, 5, 7, 10, 15, 16, 18, 26, 28, 29, 30, 34, 36, 39, 43, 44, 47, 51, 53, 55, 68 and 72.

The first scenario involving smoke coming from the entrance of a single story restaurant.

Question 2 asked what information should not be included in your initial report to dispatch, and the keyed response was option d, hydrant location. Cavanagh selected option a, request for utility company to secure utilities, and he argues that the ladder company operations include utility control, however, water supply and hardware locations would be included as these assist in setting up original strategies and tactics. In reply, hydrant location is not included in an initial report; however, calling for utilities is performed when asking for additional needed resources from dispatch. In this instance, the appellant is stating that a utility company is not needed, as the ladder company can shut off the utilities. That might be so in some cases. It is not clear where the utilities are in this scenario; however, in many cases a utility company is required when the ladder company cannot access the utility shutoff. Then, it would be appropriate to include this information in the initial report to dispatch. However, it is not required to report to dispatch the location of the hydrant to be utilized unless there is an unusual circumstance, which was not present in this case. The keyed response is the best response.

Question 5 indicated that the candidate should instruct his/her primary search crew to also..., and the keyed response was option c, attempt to manually activate the hood suppression system. Cavanagh selected option b, drop all accountability tags at the door. He argues that safety is the top priority at any fire incident. He indicates that various references indicate that on the incident scene, the firefighter places one tag in a central collection point, and provides a second tag to the Personnel Accountability Officer upon entering a hazardous area, usually a structure or space where they will be performing firefighting or rescue operations. In reply, option b is incorrect, as one accountability tag should remain in the apparatus. The keyed response is the only correct action that the search crew The appellant states himself that one tag would be in a central would also do. collection point, and the second would be given to the Personnel Accountability Officer. Thus, not all tags would be at the door. The keyed response is the best response.

Question 7 indicated that an unconscious customer has been pulled out of the building by your primary search team but EMS has yet to arrive, and it asked which action should be taken FIRST. The keyed response was option a, check breathing. Judge selected option c, open an airway, and he argues that Fundamentals of Fire Fighter Skills, 3rd edition, published by Jones and Bartlett, indicates on page 750 that A stands for airway, and B stands for breathing, and you must assess and correct the airway before turning your attention to breathing. He indicates page 752 states that an unconscious victim's airway is often blocked because the tongue has dropped back and is obstructing the airway. Simply opening the airway with the head-tilt chin lift or jaw thrust maneuver may enable the victim to breathe spontaneously. In reply, if the person is breathing, it is not necessary to check the airway. That is, you would not open the airway until you checked if patient was breathing or not. If the person is not breathing, then the ABC¹ process can be started. The keyed response is correct.

The second scenario involved smoke showing from the front entrances of a single story gym in a non-combustible strip mall.

¹ Airway, Breathing, Compression

Question 10 asks where to set up the command post at this incident, and the keyed response was option d, Correa Street. Cavanagh argues for option b, Springer Street, A/B corner, as this location is upwind and out of the collapse zone in a flanking position with the viewpoint of the building, and close to the corner of Spring and Correa Streets. He argues that the keyed response is nonspecific, as it is a long street. In reply, the scenario indicates that the gym has a parapet wall. Springer Street, on the A/B corner, is incorrect as it is in the collapse zone of the parapet wall. In addition, the A/B corner on Springer Street is incorrect as the front of the building should be clear for the apparatus. The keyed response is correct.

Question 15 asks for the concern for fire spread to the exposures, and the keyed response was option b, expansion of steel. Cavanagh selected option c, walls being made of combustible material. He argues that combustible wall material will add to the fire load and spread of fire. He argues that expansion of steel is more of a collapse concern than fire spread. In reply, the scenario indicated that the gym was located in a non-combustible strip mall. As such, the building would not have combustible material for walls. The keyed response is correct.

Question 16 indicated that the thermal imaging camera (TIC) is out of service, the candidate's rescue crew is inside attempting to find the reported victim. It asked for the BEST search technique, and the keyed response was option b, follow the wall to the left of the entrance. Cavanagh selected option c, check as close to the fire as possible and work back toward the entrance. He argues that according to pages 85 and 286 of Fire Officer's Handbook of Tactics, 4th edition, by John Norman, the primary search should start at the fire area and work back to the entrances. He maintains that, although the last known location of a customer was in the bathroom to the left, the fire area was to the right and the escape route on side C was closer to In reply, following the wall to the left of the entrance is the most the fire area. direct route to the bathroom where the victim was reported. Page 282 of Norman indicates that basic search techniques should be used with the TIC is out of service. Checking as close to the fire as possible and working back toward the entrance is acceptable without information regarding a victim in a specific location. In this case, the firefighters were told of a victim last known to be in the bathroom to the left. The keyed response is the best response as it leads the firefighters directly to the bathroom.

Question 18 indicated that all personnel are accounted for and safely out of the building. It asked for the LEAST number of additional PARS that should be conducted from this point on, and the keyed response was option b, 1. Cavanagh argues for option c, 2. He argues that according to page 3 of Fire Service Reference Booklet Number 10 N.J.P.A., after an emergency evacuation is ordered there are two more situations that would occur, the change of modes from offensive to defensive, and the incident is declared under control. In reply, the question did not indicate that an emergency evacuation has been ordered. Rather, it indicated that all personnel are accounted for and safely out of the building. Therefore, an emergency evacuation has already occurred and a change of operational modes coincided with the evacuation, as there is no reason to continue an offensive operation. The incident is not yet under control, and therefore, the minimal number of PARS that should be conducted is one. The keyed response is the best response and will not be changed.

The third scenario involved a concrete block cinema building, where fire had started in theater 5, which was under renovation.

Question 26 indicated that the candidate must provide ventilation for theater 5, and it asked for the type of ventilation to be performed first. The keyed response was option d, horizontal ventilation, and Cavanagh argues for option a, vertical ventilation. He contends that there are high ceilings and products of combustion that would rise to the truss and metal deck roof, causing the frying pan effect as discussed on page 358 in Norman, and those products are best released with vertical ventilation. In reply, the scenario indicated that the metal deck roof is supported by protected steel bar joists. It also indicated that theater 5's sprinkler system was out of service, it was closed for renovation, was used for storage of supplies including solvents, cleaning agents and adhesives, and the fire began in theater 5. Page 51 of Collapse of Burning Buildings - A Guide to Fireground Safety, 2nd Edition, by Vincent Dunn indicates, "tests have shown that unprotected steel bar joists can fail when exposed to fire for 5-10 minutes. This possibility makes it extremely dangerous to operate on a roof supported by steel bar joists which is being heated by flames." In this case, horizontal ventilation using the back door of theater 5 must be done *first* before other options. Even if vertical ventilation were a consideration, it would be done after horizontal ventilation has taken place. The decision of vertically venting this roof would be based on risk assessment, and there is no guarantee that vertical ventilation would occur because of the dangers involved with a metal deck roof. The keyed response is the best response.

Question 28 asked which action should be taken first now that the fire has been darkened down, and the keyed response was option c, check the roof covering above the metal deck for extension. Cavanagh argues for option a, conduct a PAR of all on-scene personnel. He maintains that a darkened down fire means that it is under control, and therefore it is time for a PAR to be conducted. In reply, a darkened down fire is not always an incident under control, and the question did not indicate that the incident was under control. Rather, page 42 of *Dunn* indicates that, "When a fire occurs in a noncombustible building, as soon as possible after the fire has been darkened down, the officer in command should have a firefighter check the roof covering above the fluted metal deck for fire extension. During a fire, heat may conduct through the metal roof deck and ignite the combustible roof covering above." The keyed response is correct. The fourth scenario involved smoke coming from the attached garage of a two-story, wood-frame home, and the resident indicates that the fire started in his Prius.

Question 29 asked the candidate where to instruct the driver to position the ladder truck, and the keyed response was option c, shortly before the building on the A/D corner. The appellants argue for option d, past the building on the A/B corner leaving room for the engine. They argue that this maximizes the scrub area and is upwind. They state that the A/D corner would not give a three-sided view of the building on approach and would be downwind. In reply, the A/D corner is the best position as it is in front of the only area of the garage roof that can be vertically vented free of the solar panels. The keyed response is the best response.

Question 30 asked for the **MAIN** concern at the incident, and the keyed response was option d, photovoltaic panels. Cavanagh argues for option b, exposure on side D. He argues that exposure D is in close proximity and a 17 mph wind would cause a catastrophic effect on the fire attack and exposures, and would require an additional alarm. He maintains that the roof area is not compromised. In reply, the scenario indicates that side D faces a similar style residential property, and the fire is in the attached garage of the fire building. While the wind is blowing southeast at 17 mph, exposure D is due east of the fire building, and the fire is not big enough upon arrival to cause exposure to be the MAIN concern. The main concern is the presence of the photovoltaic panels, which can cause electric shock, dead load of the system on the roof as the fire burns below, the release of a variety of hazardous materials contained in the individual modules, and the hazard of the batteries used to store the generated electricity. The keyed response is correct.

Question 34 asked candidates to complete the sentence, "All of the following steps must be taken by your crew **EXCEPT**..." and the keyed response was option c, ensuring emergency release has been activated. Cavanagh argues for option d, disconnecting any switchgear on the roof and on both sides of the inverter. He states that he would only allow a firefighter to disconnect electrical sources from the ground area/ground boxes, not in the hazardous area of the panels themselves. In reply, page 355 of *Brannigan's Building Construction for the Fire Service*, 5th edition, by Glenn P. Corbett and Francis L Brannigan, indicates that disconnecting any switchgear on the roof and on both sides of the inverter is a specific action to take to mitigate the hazards associated with this type of energy-generating system. As such, option d is clearly incorrect. The keyed response will not be changed.

Question 36 indicated that the garage sustained a partial roof collapse and it asked for the first action that should be taken. The keyed response was option d, sound evacuation tones. Cavanagh argues for option c, ensure everyone is out of the collapse zone. He states that after a mayday, those in the collapse area should remove themselves, and then evacuation tones should be sounded. In reply, the scenario indicated that the candidate is the Incident Commander (IC), and the IC should be concerned about and interior crews getting out before being out of the collapse zone. Cavanagh's argument involves the firefighters removing themselves, while the question should be considered from the point of view of the IC. The keyed response is the best response.

The fifth scenario indicated there was smoke and fire coming from the second floor of a two-story home of ordinary construction.

Question 39 asked for the main concern of this incident, and the keyed response was option d, location of fire. Cavanaugh selected option a, exposures, and argues that the location of the fire makes fire spread possible to the exposures. In reply, the scenario indicated that the fire building is a two-story home. Side B faces an attached identical residential home with a firewall separating them, beyond which is a similar residential two-story property. In this case, the presence of a firewall makes exposures less of a concern. However, on page, 7 Norman states that the sequence of actions "locate, confine and extinguish" should always be followed and other tasks cannot be completed until the location of the fire is determined. The keyed response will not be changed.

Question 43 indicated that Engine 2 carries 50-foot lengths of hose and is approximately 25 feet from Side A of the fire building. The question asked how many lengths of hose would be needed for the initial attack line to fight this fire at MINIMUM. The keyed response was option b, 3, and the appellants argue for option c, 4. Hamilton and Cavanagh argue that Norman (page not given) states that a rule of thumb is to have enough hose to equal the width of the building plus the depth of the building plus one length for each floor above or below the level that is on fire. Thus, given that the building is 25 feet by 45 feet, with a setback of 25 feet from side A, they argue that they would need 90 feet of hose, or two lengths. As the fire is two floors up, following *Norman's* rule of thumb, they need four lengths of hose. In reply, the fire building is a two-story home and fire is on the second floor. As such, there is no floor above the fire. The appellants are correct that they would need 90 feet of hose, or two lengths, for the width and depth of the building. Nevertheless, only one additional length of hose is needed for the floor below the fire, so the minimum lengths of hose needed for the initial attack line to fight this fire is three. The keyed response is correct.

Question 44 indicated that Engine 1 has established a water supply and is feeding Engine 2. Engine 2 has lines stretched into the building but [the engine] will not go into pump. This question asked for the BEST action to take, and the keyed response was option c, increase pressure and pump through Engine 2. Cavanagh argues for option b, disconnect lines from Engine 2 and connect to Engine 1. He argues that using the large diameter hose and manifold from Engine 1 would involve little friction loss, and Engine 2 can be removed and replaced. He indicates that using the broken engine to pump through would result in more friction loss due to bends in the pump, and the capacity of the pump of Engine 1. He argues that what they are pumping at is unknown. In reply, the Subject Matter Experts, individuals with expertise in firefighting, determined that pumping through Engine 2 is less time consuming than other options, since doing so does not cause operations to be stopped and restarted. Option b is not the best response as it is not time efficient to start all over by shutting down lines and reconnecting them to a different apparatus. The keyed response is the best response.

Question 47 indicated that it is 30 minutes into the incident and the attack crew from Engine 1 has yet to exit the building. This question asked candidates for the person who is MOST responsible for monitoring the duration of this crew's attack with adequate manpower to fill command staff roles. The keyed response was option b, Personnel Accountability Officer, and Judge selected option d, Safety Officer. He argues that the question referred to filling command staff roles, and that the Personnel Accountability Officer is not part of the command staff per the New Jersey Fire Service reference booklet 9, while the Safety Officer is a command staff member. In reply, page 35 of the of The New Jersey Firefighter Skills Addendum states, "Time can be monitored by the PAO.....By marking the time of entry of each crew and knowing the average duration of the department's SCBA, the PAO can gauge as to when to expect the crew to exit or if they might be in trouble if they are overdue." The Safety Officer is responsible for surveying the entire incident from a safety perspective, stopping unsafe acts, making recommendations to the IC concerning safety aspects, and being briefed by the IC on the strategy. Monitoring the interior times of crews is not a responsibility of the Safety Officer. The Personnel Accountability Officer is not a position of the immediate command staff, but is a supplementary role of the command staff and a function of the command staff. The question asks for the most responsible command staff role for this task, and the only correct response is the keyed response.

The sixth scenario involved smoke and fire coming from the fourth floor of a hotel.

Question 51 indicated that a chief has arrived and assumed command. Due to the large area floor layout, guide ropes will be used to perform the primary search. This question to ask candidates to complete the sentence, "Your crew should secure their search rope by utilizing ..." and the keyed response was option d, bowline knot. The appellants selected option a, figure eight knot, and argue that neither *Norman* nor *Fundamentals* states that a bowline is the best choice to tie off a search rope. They state that *Fundamentals* indicates that a loop knot, which include figure eight knots, can be used to secure a rope to a fixed object. Also, the bowline is known to slip with synthetic rope, and search rope is synthetic, so the figure eight knot would be safer. In reply, on page 279, *Fundamentals* references

the bowline and states that, "This type of knot is frequently used to secure the end of a rope to an object or anchor point." The figure eight knot is used to produce a family of other knots. Given that *Fundamentals* indicates the use of the bowline, and does not specify that it is unsafe if the search rope is synthetic, the keyed response is the best response.

Question 53 indicates that the candidate instructs Engine 7 to connect to the standpipe system, and asks candidates to complete the sentence, "Engine 7 should ..." The keyed response was option d, charge it with a maximum of 175 PSI. Cavanagh selected option a, not connect to the standpipe system. He states that standpipes are tested at a maximum of 200 PSI. He also indicates that standpipes should be pumped at 100 PSI, plus five PSI per floor of fire, so this scenario would require 120 PSI maximum, or 170 PSI for a fog nozzle. He maintains that there is no correct answer to this question. In reply, each question has one best answer, and candidates were instructed to select the best answer to each question. Not connecting to the standpipe system is clearly incorrect, as the question indicates that the candidate has ordered Engine 7 to do so. Page 151 of Norman states, specifically for type III construction, non-combustible, "After 1993, NFPA 14 permits up to 175 PSI at 2¹/₂-in. outlets but still allows 100 PSI as the minimum pressure." This question asked for the maximum PSI, and the keyed response is correct.

Question 55 indicates that the candidate has established a RIC, and asks what **EACH** crewmember should possess. The keyed response was option b, sharp knife, while Cavanagh selected option d, RIC PAK. In support, he argues that page 317 of *Norman* provides a list that includes a RIC PAK. He also states that page 5 of Fire Service Reference Booklet Number 12 for Rapid Intervention Crew does not list a knife but lists a RIC PAK, while Fire Service Reference Booklet Number 9 Model Fire Department Rapid Intervention Crew does not list a knife but lists a SCBA. In reply, Fire Service Reference Booklets were not on the booklist. However, page 317 of *Norman* indicates a list of five items for all members to possess, and a sharp knife is included. The RIC PAK is in the list of additional items for the RIT Officer to equip the *team*. The keyed response is clearly correct.

The eighth scenario involved smoke coming from the top-floor of a two-story home.

Question 68 asked the candidate for his/her instructions to Engine 1 upon arrival, and the keyed response was option a, conduct a forward lay from hydrant 1. Cavanagh selected option c, conduct a forward lay from hydrant 2. He argues that the approach was from the west so hydrant 2 is the first hydrant in route. He argues that a forward lay on this hydrant would be easier and quicker, and although it would be a little longer of the stretch, the friction loss with a large diameter hose would be minimal. The keyed response would require rerouting the engine and would increase reflex time and water supply time. In reply, although the approach was from the west, a U-turn should be made at the light at the large intersection, which allows for a forward lay from hydrant 1, providing less distance to the fire. Option c is not the best response, as a forward lay from hydrant 2 is a much longer lay, over twice as long. The keyed response is the best response.

Question 72 indicated that the primary search crew radios back again saying that the team has become disoriented. This question asked for the action that should be taken FIRST by the IC, and the keyed response was option c, get more information from the search crew. Bruzzichesi selected option a, deploy RIC. In support, Bruzzichesi relies on "Fire Service Reference Booklet 12, Rapid Intervention Crew Training Guidelines." This was not a reference on the booklist, and it was not provided in its entirety by Bruzzichesi. Rather, he supplies typed pages labeled pages 5 through 8, 29, and 33. On these pages, Bruzzichesi highlights the role of the RIC leader, one reason for requesting a mayday, the information to be provided in a mayday, the use of the term mayday, confirming the information received, one action of RIC operations during normal fire operations, and activation of the RIC. He argues that it is the responsibility of the RIC leader to gather all possible information including the location and assignments of working fire fighters and crews in case of a mayday. In reply, page 313 of Norman indicates that, "the first step (emphasis added) is to contact the member transmitting the mayday and get as much information as quickly as possible. At a minimum, this should include the name and unit of the member transmitting the Mayday, his or her location, and a brief description of the emergency. Once that information is at hand, steps can be taken to prevent or alleviate the condition." After getting preliminary information, the IC can deploy the RIC. The keyed response is correct.

CONCLUSION

A thorough review of appellants' submissions and the test materials reveals that the appellants' examination scores are amply supported by the record, and the appellants have failed to meet their burden of proof in this matter.

ORDER

Therefore, it is ordered that these appeals be denied.

This is the final administrative determination in this matter. Any further review should be pursued in a judicial forum.

DECISION RENDERED BY THE CIVIL SERVICE COMMISSION ON THE 27TH DAY OF MARCH, 2018

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Deirdre L. Webster Cobb Acting Chairperson Civil Service Commission

Inquiries and Correspondence Christopher S. Myers Director Division of Appeals and Regulatory Affairs Civil Service Commission Written Record Appeals Unit P. O. Box 312 Trenton, New Jersey 08625-0312

c: William Bruzzichesi (2018-1659) Joseph Cavanagh (2018-1694) Christian Hamilton (2018-1693) John Judge (2018-1697) Patrick Lento Jr. (2018-1821) William Devenny (2018-1822) Michael Johnson Records Center