STATE OF NEW JERSEY

In the Matter of James Arpino, Battalion Fire Chief (PM2170W), Voorhees Township, and Rich Marsh, Battalion Fire Chief (PM2153W), Hoboken	:	**FINAL ADMINISTRATIVE ACTION OF THE CIVIL SERVICE COMMISSION**
CSC Docket Nos. 2021-1261 2021-1300	:	Examination Appeals

ISSUED: JULY 2, 2021 (RE)

James Arpino and Rich Marsh appeal the correct answer to questions on the multiple-choice examinations for Battalion Fire Chief (PM2170W), Voorhees Township, and Battalion Fire Chief (PM2153W), Hoboken. These appeals have been consolidated due to common issues.

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 six scenarios, each with a description and various accompanying diagrams, and candidates were required to answer questions pertaining to each scenario. Arpino challenges the correct responses to questions 5, 54 and 62, while Marsh challenges the correct responses to questions 8, 11, 41, 42, 54 and 61. As a result of a review of these appeals, the Division of Test Development and Analytics (DTDA) double-keyed question 8 to options c and d, and deleted question 11. The examination results are not yet available.

The first scenario involved a report of a fire in a two-family, 2.5 story, balloon-frame construction residence with an apartment on each floor. Fire is present on the first and second floors.

Question 5 indicated that the fire has reached the attic and intensified, and roof ventilation is necessary. The candidate is concerned of a potential roof collapse and wants to use the safest precaution. This question asks what the crew should be ordered to do to protect themselves, and the keyed response was option a, secure a portable roof ladder from the ridge to the bearing wall. Arpino selected option c,

abandon interior operations and switch to a defensive operation. In support, he quotes from pages 100, 108, 110, 324, 408 and 409 of *Safety and Survival on the Fireground*, by Vincent Dunn, and page 545 of *Fire Officer's Handbook of Tactics*, by John Norman. He argues that with a concern of a roof collapse, the crews should be evacuated from the structure and an exterior attack be initiated. He maintains that a roof ladder would be appropriate for a potential roof deck collapse, but not a potential roof collapse.

In reply, the question indicated that roof ventilation is necessary, and did not give the candidate an option to abandon roof operations. The SMEs determined that given the description of the fire building, the primary issue of a peaked roof is a roof deck. This is a basic concept as the roof deck is a thinner wood than the roof rafters and would burn through fast. As the question stated that roof ventilation is necessary, the most likely scenario is that the roof deck is in danger of collapse, not the rafters and beams, and thus, the keyed response is correct.

Question 8 asked, based on the construction of this house, which is **NOT** an indicator of a potential collapse, and the keyed response was option c, crack in the brickwork of exterior walls. Marsh selected option d, water or smoke seeping though a solid wall. In support, he states that the structure is a type 5 with a brick veneer mounted to wood studs. Therefore, smoke would not seep through a solid wall as a solid wall is made of masonry, as in a type 1 structure.

In reply, the scenario described this structure as a two-family house made of balloon frame construction in the 1920s. The picture indicates a two-story residential structure. Water or smoke seeping through a solid wall is an indicator of collapse of some concrete walls. As such, this is a correct response, and the question was double-keyed to options c and d.

Question 11 indicated that the fire in the house is in the smoldering stage and has nearly burned all of the contents or fuel in the room. Is asked for the **MOST** likely cause of the smoldering stage of this fire, and candidates were to finish the sentence, "There is a lack of…" The keyed response was option a, oxygen. Marsh selected option d, heat. In support, he argues that even if oxygen were to be pumped into the room, there would be no fire as there is no fuel. In reply, a review of this question indicates that it is flawed, and it will be deleted from scoring.

Scenario 4 involved a fire and smoke showing from the second floor windows in a two-story, side-by-side, ordinary construction row-frame building, with unaccounted residents.

Question 41 indicated that the ladder company is about to shut off the power; however, the firefighters are unsure if it is safe to proceed, since water has collected on the floor in front of the electrical panel. Candidates were to finish the sentence,

"You should tell them to …" and the keyed response was option d, stop, because standing on a wet floor could produce arcing. Marsh selected option c, stop and remove any metal objects on their person before continuing. In support, he argues that any company shutting power should not have metal tools with them, as a spark may jump from the electrical supply panel to the firefighter shutting the supply while standing on a wet, conductive floor.

In reply, page 269 of *Safety and Survival on the Fireground*, 2nd edition, by Vincent Dunn, states that arcing is the situation in which a large electric spark jumps between two closely spaced, conductive objects when electric current is interrupted, and one of the conductive objects could well be a firefighter. A spark might jump from the panel to the firefighter when he is shutting off the electrical supply and standing on a wet, conductive floor. The appellant is correct that the crew should not have been carrying metal objects on this assignment. Therefore, they should not have had them with them to put down. On the other hand, arcing can occur in this situation with just the presence of the crew. As such, the keyed response is the best response.

Question 42 stated that the fire has entered the cockloft of the involved building and the candidate decides to apply a tower ladder bucket master stream. Candidates were to finish the sentence, "You should have the stream positioned…" and the keyed response was option b, below the cockloft so that the water streams up. Marsh selected option a, above the cockloft so that the water streams down. In support, he states that the question makes no sense as water cannot flow up due to gravity.

In reply, page 118 of *Norman* says to put a lot of water on the fire from underneath so it will cool off the fuel/fire. Marsh is correct that water does not stream up by itself. However, if the hose is positioned upwards, the water will stream up from the hose to below the cockloft. Once water from a hose stream arcs, it will stream downwards. However, *Norman* does not support option a. The keyed response will not be changed.

Scenario 5 involved a fire in a large single family, two-story home started by an arsonist using an accelerant after a murder in the house.

Question 54 asked which action should you have your engine companies take to extinguish the fire on Side A based upon the scenario description and diagrams. The keyed response was option c, master streams from a distance. Arpino selected option a, stretch multiple 1¾-inch handlines through Side A. In support, he argues that page 61 of *Norman* indicates that a 1¾-inch handline allows for sufficient water flow, and also speed and flexibility. The appellant states that the question does not reference question 53, only the scenario description and diagrams. Marsh selected option d, protect in place until the bomb squad arrives. He states that this

is the only choice since the lethal range of 500lbs. of explosives is 100 feet, the maximum evacuation distance is 1,500 feet and the falling glass hazard is 1,250 feet. He states that the size of the premises could easily hide a bomb the size of a compact sedan, and that there were no known life hazards, no indication of when or if the bomb would go off, and that firefighters would be in danger setting up unmanned defensive positions.

In reply, as to Arpino's arguments, question 53 indicated that police officers state that the suspect has indicated that there may be some sort of explosive device inside of the building. This is a description of scenario as well and cannot be ignored. However, Marsh has identified the explosive device as 500lbs, which was not information provided in the examination materials. There has been the use of an accelerant, a murder (body) in the building, and a possible explosive device in the building. The main attack line was delayed, and the fire is giving a lot of high heat and steam. According to page 591 of *Norman*, an explosive device inside of the building warrants the use of heavy streams from a distance, using the reach of the stream to increase the safety factor. Based on these factors, the keyed response is the correct response.

Scenario 6 refers to a fire in an afterschool learning center, a two-story noncombustible building. Fire can be seen through the second-floor windows of side A, on the A/B side. All students are not accounted for.

Question 61 indicates that a search and rescue operation on the second-floor encounters smoke hanging low to the floor away from the main body of fire. Candidates were to finish the sentence, "The smoke **MOST LIKELY** indicates that …" and the keyed response was option b, fire that has recently been extinguished in the area. Marsh selected option c, intense fire is spreading directly below the area. In support, he states that a fire away from the main body of fire makes no sense, and neither does the fact pattern of you extinguishing it and then "discovering" it. He states that pipe chases and void spaces could push smoke through the floor and particles of unburned combustion may be filtered out making the smoke lighter in color.

In reply, this was a fire in a two-story, afterschool learning center, and question 59 referred to the automated sprinkler system. According to page 511 of *Norman*, smoke settling or hanging low in low spots is known as cold smoke. It is found at fires in sprinklered areas or where a fire has been fully or partially extinguished. The keyed response will not be changed.

Question 62 indicated that dispatch confirms that there is a victim trapped inside a 2nd floor bathroom, and the candidate orders a ladder company to ventilate the Side B windows. It asked candidates to complete the sentence, "They should perform the ventilation…" and the keyed response was option a, as soon as they are

able to perform the task. Arpino selected option c, once the engine company has a charged line in place. In support, he argues that the question did not provide enough information for a proper response, as there is a bathroom on side D as well as on side B. He maintains that if the victim were in the side B bathroom, she would be between the fire and windows. Breaking the windows would draw the fire towards the victim without a charged line in place. If the victim were in the side D bathroom, venting side B would draw the fire away from her. Thus, he concludes that the most appropriate answer would be to wait for a charged hoseline to be placed.

In reply, page 243 of *Norman* states that the key factor between venting for life and venting for fire is the timing of the ventilation. "Venting for life should obviously begin as soon as possible after the life hazard is recognized…. Horizontal ventilation can also be performed to assist the lifesaving effort, but you must know the consequences of doing so. For example, if a person is reported to be in a room adjacent to the fire area, venting the windows will allow an influx of fresh air to someone whose life depends on it. Still, if you don't immediately take steps to remove that victim, you may worsen his or her plight by drawing fire toward the vented window." If the victim is in the side B bathroom, the appellant's option, to wait for a charged handline, may cause his or her demise with the fire so close in the adjoining rooms. The SMEs determined that time is of the essence with a confirmed victim, and life safety is the first priority. The wind (at 20 mph) will push the fire to the unburned side of the building, but the victim is the priority and this is a valuable tradeoff. As such, the SMEs determined that the keyed response is the best response.

CONCLUSION

A thorough review of the record indicates that, except for question 8 which has been double-keyed to options c and d, and question 11 which has been deleted, by DTDA prior to list issuance, the determination of DTDA was proper and consistent with Civil Service Commission regulations, and that appellants have not met their burden of proof in these matters.

ORDER

Therefore, except for the double-keying of question 8 to options c and d, and the deletion of question 11, it is ordered that the remainder of the appeal 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 30TH DAY OF JUNE, 2021

Deirdré L. Webster Cobb

Deirdré L. Webster Cobb
Chairperson
Civil Service Commission

Inquiries
and
Correspondence

Allison Chris 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: James Arpino
Rich Marsh
Division of Test Development and Analytics
Records Center