

Virginia Fire Services Board

Live Fire Training Structure Committee

Thursday, November 30, 2023

Virginia Department of Forestry Headquarters

900 Natural Resources Drive

Charlottesville, Virginia 22903

9:00 AM

MINUTES

A regular meeting of the Live Fire Training Structure Committee meeting was held at the Virginia Department of Forestry. The meeting was called to order by Chair Bettie Reeves Nobles and a quorum was present.

COMMITTEE MEMBERS PRESENT

Bettie Reeves-Nobles, Committee Chair – General Public
James Calvert –Industry (SARA Title III/OSHA)
Jerome Williams - Certified Fire Service Instructor
JM Snell II –Board of Housing and Community Development
Billy Hanks – Local Fire Marshal
Dennis Linaburg – Virginia Chapter, IAAI
Jess Rodzinka – Virginia Professional Fire Fighters

COMMITTEE MEMBERS ABSENT

AGENCY MEMBERS PRESENT

Theresa Hunter, Chief Administrative Officer
Spencer Willett, Government Affairs Manager

GUESTS PRESENT

Mike Watkins
Brandon Proffitt
Alan Ambrose

CHANGES IN THE AGENDA

PUBLIC COMMENTS

CONSENT AGENDA

Motion: To approve the minutes of the previous meeting (September 2023)

Motion: Calvert, **Second:** Linaburg

Discussion on the Motion: None

Vote: Unanimous

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Action: Minutes approved

COMMENTS FROM THE COMMITTEE CHAIR

Bettie Reeves Nobles spoke about the need for the Virginia Fire Services Board (VFSB) to take full consideration of National Fire Protection Association (NFPA) 1403 and the International Building Code (IBC), as well as NFPA 1402, prior to the completion of Prototype 4. Reeves Nobles suggested a need to review the grant language and update the language, which was last updated in June of 2020. Spencer Willett explained that committee members should review the current grant policy and submit comments/edits to Reeves Nobles and Willett prior to the VFSB meeting in February.

UNFINISHED BUSINESS

a. Report from The Structures Group: New Live Fire Prototype

Alan Ambrose presented on updates from the previous meeting, as well as design challenges related to prototype 4. He would also highlight The Structures Group's (TSG) review of Goochland's container style design. He spoke about design challenges including the visibility of bolts/hardware, as well as exhaust fans. He also spoke about the VDFP "standard" and the industry's flexibility in meeting NFPA standards. Floor finishes and how standard containers have wood floors that may have dangerous chemicals was explained. Floors also could have raised edges. Issues related to thermal expansion of welded wall components was covered.

Reeves Nobles asked about architecture and engineering firms (A/E) and if Goochland had an independent A/E. Ambrose explained that they have multiple engineers involved, and that one firm in Canada hired another firm to receive a Virginia stamp. There are three engineers on the project that do not appear to be communicating. Ambrose explained the process and how an independent A/E firm would assist in the project. He reiterated he was not picking on Goochland; they are just the most recent project approved by the VFSB. He does not know if any of these firms are complying with the VDFP, IBC or NFPA standards. TSG took issue with no specific container type specified and the volume within. Container couplers would be welded to a baseplate in the ground, which TSG does not agree with. This is because the steel can expand under high heat conditions. This will cause stress on other components.

Calvert asked if the design for prototype 4 had been produced as requested in the prior meeting. Ambrose stated no, and that he was not aware that the design needed to be completed. Calvert stated that many of the design issues referenced by Ambrose are found in the NFPA documents.

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Calvert also spoke to how these structures had to be designed to standards based off where it was built and installed according to the building code where it was being placed. Calvert also asked about why certain A/E firms were being picked rather than others and that it seemed baseless. Calvert did not understand why there is a pitch for a single A/E firm. There are no reasons to say multiple A/E firms cannot be used unless there are ethical considerations. He asked the board clerk if the design was supposed to be presented at the December meeting, which he thought was the case. Calvert asked if the firm (TSG) approves the design, inspects the design, and does TSG do repair work? Ambrose stated TSG works for the Department of Fire Programs (VDFP) and cannot take work on behalf of other entities in this area.

Ambrose stated that they are not allowed to solicit work because the firm works for VDFP. Regarding several engineers working on the project, he spoke about how it did not appear one was speaking to the locality or taking lead. The manufacturer leading as the A/E could lead to issues. IBC states a landing must be at each door, which is also referenced in NFPA 1402. These are potential building code violations that would be caught in a comprehensive plan review by an independent A/E. Ambrose gave another example regarding the rise and run of stairways. No dimensions were submitted by Goochland. He spoke about these containers could meet IBC, but not specific Virginia requirements. Calvert asked if it needed to be approved in the locality of construction or just the installation. Ambrose did not understand the question and stated that it needed to meet the rules where it is constructed. Each locality must adopt the state building code. In North Carolina, localities pick the building code and can require more stringent code requirements.

Calvert asked if, as a professional engineer, he would state that the Goochland design is out of compliance with NFPA 1402. Ambrose spoke that without dimensions, he would not agree that the design is ready to move forward. Calvert attempted to ask members of the audience a question concerning the project, which the board clerk advised was not allowed.

Calvert asked if the specification was due in December. The board clerk read the approved minutes from the September 2023 meeting, which stated "Ambrose stated that specifications had not been provided. Reeves-Nobles asked if this would be provided in December. This will include NFPA 1402, 1403, and IBC requirements". Calvert asked if the specification was ready, Ambrose stated it was not December yet.

Calvert asked when the TSG contract was last bid by VDFP. Theresa Hunter stated it was year before last.

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Linaburg spoke about the need for these structures and the standards that the VFSB needs to follow. Linaburg spoke about how TSG should be able to review all proposed models and determine if it meets the standards set by the VFSB. Linaburg talked about how many projects have multiple engineers that specialize in certain areas. He talked about this development should be simple and that the VFSB keeps kicking the can down the road. Linaburg talked about clarifying what is needed from TSG.

Reeves Nobles asked how close TSG was to completing the prototype. Ambrose stated in December, which VFSB members stated was the next day. Ambrose stated that December 31st is also December.

Jess Rodzinka asked about the Bristol building and issues seen there. Rodzinka asked if the engineers at the companies producing these structures are not accounting for weathering, etc. Ambrose said it was a mischaracterization to say the firms had not, and stated he has not seen a full set of engineered drawings from Goochland County which is a concern. Rodzinka stated that a mountain was being made of a mole hill, and asked why people from TSG, Goochland, and VDFP have not sat at a table and worked these issues out. Ambrose stated this could happen and TSG has sent comments to Goochland.

Hunter stated the current grant policy states that an A/E firm must be working on behalf of the locality and works with TSG to review plans. Hunter stated VDFP funds \$30,000 for this. Hunter explained how this process typically works.

Calvert stated that designs were required to be NFPA 1402 compliant. In Calvert's opinion, if NFPA 1402 is met, it should be a safe building. Calvert stated structures needed to be safe and free the VFSB from liability.

Reeves-Nobles stated this is why it is important for the locality has an independent A/E firm to review for safety.

Johnson asked if manufactured homes had to meet the building code where it is built or where it is ultimately located. JM Snell II stated it was where it was located or installed, not where it was built. Ambrose spoke about wind loads and how these can change from state to state.

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Abbey Johnston, Vice Chair of the VFSB, asked to speak. The board clerk stated she could speak as a member of the public, which Chair Reeves Nobles allowed. Johnston asked what the plan was for the month of December. When can the committee anticipate having the document? Will this be complete?

Reeves Nobles wants a project that will be safe in the Commonwealth of Virginia. Reeves Nobles wants a realistic timeline so that it is done right and safely.

Ambrose spoke about existing requirements and how other VDFP prototypes could be used if the container meets the requirements in these prototypes.

Calvert spoke about dimensions and how there was no regulatory design basis for this. NFPA 1402 includes IBC requirements by reference. Do you believe if a building is designed to NFPA 1402 and all incorporated references would it be safe? Ambrose stated the building would be safe if it meets that and local requirements. He brought up the need to discuss the lifespan of this type of structure.

Reeves Nobles asked again the question of timelines and emphasized she did not want to rush. Ambrose stated it would be complete by the end of December (December 31st). Hunter asked what exactly they would be presenting at the end of December. Ambrose stated the two sets of drawings for Class A and B fuels and specifications for these.

Linaburg asked how TSG works from starts to finish with a project. Ambrose stated that the firm looks at the design and through the plans for safety. Hunter stated that they put together a document that lists out concerns and the localities A/E firm uses this to make changes to the building. Linaburg asked where Goochland is at in the process. Hunter stated that TSG cannot offer design work to a locality. Calvert asked about a crosswalk for Goochland to alleviate the issues that TSG has found. Hunter explained a crosswalk presented by Goochland to the board has not been included in the review by TSG. Hunter stated that no actual drawings were submitted by Goochland and that they sent in information too early. Calvert asked if a certified engineer approved the design and if it met NFPA 1402 would that work. Hunter stated they needed one A/E firm to lead this but that should be fine. Linaburg asked if designs needed stamped. Ambrose stated yes. TSG reviews plans to see if they are safe to proceed.

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Hunter asked if the designs were submitted by December 31, if they wanted VDFP to send this to Goochland. Reeves Nobles directed VDFP to wait until after the committee met in February.

Calvert clarified that Goochland and Richmond could still move forward because it was approved for 1402 prior to the prototype discussion. Hunter confirmed this was true.

NEW BUSINESS

Mike Watkins spoke about Goochland having a delayed response from Fire Programs in their live structure project. They are moving forward and it will meet NFPA requirements for safety. He reiterated that delays from Fire Programs and the lack of face-to-face meetings are leading to delays in their compliance with guidelines. Proffitt spoke about A/E as a 3rd party and how it is difficult since it's like building a fire truck. The firms are talking to each other almost weekly. Goochland sent early information to keep everyone in the loop at VDFP and TSG. Goochland will get a set of manufactured drawings soon to submit. He talked about a meeting with their building official regarding permits for the project.

Reeves Nobles asked about A/E funding. Hunter stated that \$480,000 was appropriated in total and \$30,000 of that is for an A/E firm. No money has been issued because there is no building permit. Proffitt stated they do not need the \$30,000 for the A/E firm. They did have an hourly A/E firm but they will not design plans for a building that is already manufactured. Reeves Nobles asked if there is a plan to get a A/E firm. Goochland stated no. Proffitt stated he thought they needed 100% approval from VDFP to continue. Calvert was confused since guidance was that the project must meet NFPA 1402. The board clerk advised the committee that the grant policy still requires TSG and VDFP to approve the design.

Linaburg asked where TSG and Goochland are at in the process. Goochland is preparing answers for TSG after the review by the firm highlighting issues with the design. The county will also be providing manufactured drawings. Proffitt stated fabrication has occurred and that the burn structure is being built.

ADJOURNMENT

Board Clerk

Spencer R. Willett