MEMORANDUM

Date: July 24, 2025

From: Amber Braun – USEF Managing Director, Eventing
Hannah Seagle – USEA Director of Competitions
Phone: (859) 225-6970
RE: U.S. Eventing National Frangible Device Approval

Applications are being accepted as of April 3, 2025. Applications are accepted on a rolling basis. Please find the Application Requirements in the attached document. Submissions can be sent with attention to Amber Braun at usefeventing@usef.org.

Appointed USEF/USEA National Fragile Device Review Committee:

Jay Hambly
Jay Hambly is a renowned FEI Level 3 Course Designer and international cross-country builder. With a background as an Advanced level rider, he brings a practical perspective to his design and construction. He has contributed his expertise to some of the world's most prestigious competitions, including serving as a builder for the 2008 Beijing and 2021 Tokyo Olympic Games, as well as the 2013 Central American Games. Jay also plays an active role in the advancement of the safety of the sport, serving on the FEI Eventing Risk Management Steering Group and USEA Cross Country Safety Committee. His influence on modern eventing continues to grow as he prioritizes tradition, innovation, and safety into each course he builds.

Dr. Kaitlin Spak, PhD, P.E.
Dr. Kaitlin Spak received her PhD from Virginia Tech in 2014 based on her work modeling the structural dynamics of space flight cables. Since then, she joined Exponent, an engineering and scientific consulting company, and she currently serves as their Office Director and Principal Engineer. She has a distinct interest in the work being conducted to identify new and innovative frangible designs as she is an avid equestrian and enjoyed eventing during years of membership in the United States Pony Club and intercollegiate equestrian sports.

In addition to competing in eventing, hunter/jumpers, and dressage, she has enjoyed polo, foxhunting, and barrel racing. She has been a member of the USEA Cross-Country Safety Subcommittee since 2017. She has been actively involved with evaluating cross-country safety, including frangible design over that period, to include experience in the field evaluating fence design and implementation. Through connections at Virginia Tech, she has led the USEA's involvement in cross-country safety vest and helmet research with the university since its inception.

In 2024, she and her horse Hemingway competed at the GAIG/U.S. Dressage Federation Region 5 Dressage Championships in Colorado at second level and qualified for and competed at US Dressage Finals in Kentucky.

Tyson Rementer

Tyson Rementer has established himself as a leading course builder in the eventing community, continually enhancing the sport's safety, complexity, and aesthetic appeal. Since 2003, he's pursued course building full-time, contributing to numerous prestigious events including both U.S. five-star competitions. Rementer has collaborated with esteemed designers such as Derek di Grazia and Ian Stark, contributing to the development of world-class courses that challenge and inspire competitors as well as taking the initiative to lead the construction of over 100 new cross-country jumps at regional venues, ensuring national competitions are able to maintain hosting the eventing community.

Rementer has been a proactive advocate for integrating frangible technology into cross-country course design, emphasizing rider and horse safety. He works with course designers to find new and interesting ways to utilize the latest safety technology into different types of fences.

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U.S. Eventing National Frangible Device Approval

Intent: To introduce a process for USEF and USEA approved frangible devices. Following national approval, it is the intention that the devices will be submitted to the FEI for approval.

Objective: To encourage innovation and mitigate the risk of injury to horse and athlete on the Cross-Country phase for Eventing using varying designs of frangible devices for Cross Country fences.

USEF/USEA National Frangible Device Review Committee
Purpose: To review and recommend approval of applications for the use of frangible devices in USEF Licensed and Endorsed competitions. The Committee will be convened on an as-needed basis given the applications received. Recommendations will be presented to the USEA Board of Governors/Executive Committee and the USEF Board of Directors for approval.

Seating: To be comprised of 3 individuals recommended for appointment by the USEA Cross-Country Safety Committee and approved by the USEA and USEF leadership who meet the following criteria

- USEF Licensed 'S' Eventing Cross-Country Course Designer or an FEI Level 3 Eventing Cross Country Course Designer
- Degreed Mechanical Engineer, with at least 7 years' experience in the field.
- Experienced Eventing Cross Country Builder

Term Limits: USEA Cross-Country Safety Committee will review member performance annually and recommend reseating as needed with the approval of the USEA Board of Governors.

Application Requirements

1. **Terms and Definitions** – Frangible Device/Deformable Fence must meet the criteria outlined in FEI Updated Standard 2.1 - 2.3

2. **Instruction Manual**

The product (whether frangible device alone or complete fence) must be provided with a comprehensive and clear instruction manual written in English regarding the product's installation, use, maintenance, replacement, and disposal. This must include as a minimum:

a. A list, including diagrams or pictures, of the fence installations that the product is suitable to be fitted within (if a complete fence is not provided). For each fence installation the following information must be included:

   i) Whether the frangible fence element comprises a front rail (which includes single fence elements) or a back rail.

   ii) The angle of installation of the frangible element with reference to the travel direction of the horse

   iii) The position laterally at which the frangible element is designed for the horse to jump (typically centered in the middle of the rail for a post and rail fence, for example).

b. Dimensions of the product with critical tolerances identified
c. Clearly stated limitations of the product including mounting requirements, rail mass and/or size limits,
d. Clear instructions describing the installation procedure for the product, including for example, diagrams, visual aids
e. Clear information on how to assess if a product has been correctly installed
f. Clear information regarding the concept of how the fence operates, how it should be used and what type of impacts it is designed to offer protection against to help ensure that it is used in an appropriate manner. (e.g. how it is activated and the location and direction of loads required to activate it)
g. Clear information to ensure that users are aware of the implications of incorrect installation.
    i) Note: In order to minimize the risk of incorrect installation, manufacturers should consider how the product may be incorrectly installed and where practicable eliminate the risk of incorrect installation by, for example, altering the design to prevent incorrect installation and/or improvements to the instruction manual.
h. Clear information regarding how to reset the fence if the frangible device is activated and any critical tolerances or structures that should be inspected or confirmed before resetting

3. **Qualification Test Report** – Submissions must meet the safety requirements outlined in Section 3 of the FEI Updated Standard . Exception for 3.4 Repeatable use without fatigue - this test is only needed if there is no visual fatigue indicator. All testing must fulfill the requirements of FEI Standard Section 4. The Qualification Test Report must be submitted containing at a minimum:
    - Before and after video/photographs of the product showing it as intended to be installed and following testing
    - A list of all the tests performed which includes the test configuration and the results of these tests for each of the non-equivalent installation and critical test cases defined in Section 3.1.2 of the FEI Standard.

4. **Approval and Register of Products**

The USEA National Frangible Device Review Committee shall be responsible for evaluation of the application and recommendation for approval. The result of this evaluation will be documented and provided to the applicant.

The USEA will maintain a register of all products which have been approved to meet the requirements of this standard and therefore are eligible to be used in USEF/USEA licensed and endorsed national competitions. Products are not eligible to be used in FEI competitions or on any Cross-Country fences used for FEI courses. Approved products will be added to the National Frangible Device register.

During competition, 11 penalties will be applied for the activation of the national approved device where the dimension of the Obstacle is modified (Reference EV123).

Products will maintain approval status for two years from the date of approval to be used in USEF/USEA licensed and endorsed national competitions while continuing to refine the product. At the expiration of the two years, a renewal application can be made for the product to continue refinement of the product or the application will move forward for FEI approval.

The USEF reserves the right to remove a product from the register, and therefore its eligibility to be used in USEF national licensed competitions, if concerns arise about the efficacy of the product. For example, if the product seems to pose a greater and/or additional risk than a fixed fence or if it performs in any other fashion not in accordance with this standard or as described in the application.