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MEMORANDUM

TO: Technical Committee on Lightning Protection

FROM: Sarah Caldwell, *Senior Committee Administrator*

DATE: April 9, 2026

SUBJECT: NFPA 780 Proposed Tentative Interim Amendment (TIA) No. 1899

The attached proposed Tentative Interim Amendment (TIA) Log No. 1899 is being submitted to you for ballot to revise and renumber section 4.15.5 as new section 8.8 and renumber annex A.4.15.5 as new annex A.8.8. This proposed TIA was submitted by Mark Morgan of East Coast Lightning Equipment, Inc. and we have received written agreement to the processing of the submitted TIA from Stephen Humeniuk, Warren Lightning Rod Company, and Mitchell Guthrie, Engineering Consultant.

This proposed TIA will be published on the NFPA website for public review and submission of comments in support and/or opposition with a closing date of May 13, 2026. Any comments received will be circulated to the committee. The Standards Council will review and consider final ballot results, and all comments received in determining issuance of this TIA.

In accordance with Section 5 of the *Regulations Governing the Development of NFPA Standards*, you are balloted on the technical merits of the proposed TIA and whether the matter is of an emergency nature.

The ballot can be accessed through the NFPA online ballot system at the following link: [NFPA Ballot Link](#).

Please complete the ballot on or before **April 23, 2026 by 11:59PM (ET)**.

The return of ballots and attendance at committee meetings are required in accordance with the Regulations Governing the Development of NFPA Standards.

NFPA 780- 2026 Edition

Standard for the Installation of Lightning Protection Systems

TIA Log No.: 1899

Reference: 4.15.5

Comment Closing Date: May 13, 2026

Submitter: Mark Morgan, East Coast Lightning Equipment, Inc.

www.nfpa.org/780

1. *Revise and renumber 4.15.5 as new section 8.8 to read as follows:*

~~4.15.5~~ 8.8 Metallic Fences.*

~~4.15.5.1~~ 8.8.1 Grounding.

~~4.15.5.1.1~~ 8.8.1.1 Fences shall be grounded where located within 6 ft (1.8 m) of a structure housing explosives by interconnection with the grounding system of the structure.

~~4.15.5.1.2~~ 8.8.1.2 Fences meeting the criteria of ~~4.15.5.1.1~~ 8.8.1.1 shall also be grounded within 100 ft (30 m) on both sides of where overhead power lines cross the fence.

~~4.15.5.1.3~~ 8.8.1.3 Gate posts through which ~~vehicles~~ explosives material or personnel will pass shall be grounded in accordance with ~~4.15.5.3~~ 8.8.3.

~~4.15.5.1.4~~ 8.8.1.4 Metal single-strand fences with nonconductive posts requiring grounding in accordance with ~~4.15.5.1~~ 8.8.1 shall use a main-size conductor extending the full height of the post.

~~4.15.5.1.5~~ 8.8.1.5 The main-size conductor discussed in ~~4.15.5.1.4~~ 8.8.1.4 shall be bonded to each single strand to form a continuous path to ground.

~~4.15.5.2~~ 8.8.2 Bonding.

~~4.15.5.2.1~~ 8.8.2.1 Fences shall be bonded across gates and other discontinuities in accordance with the requirements of ~~4.15.5.3~~ 8.8.3.

~~4.15.5.2.2~~ 8.8.2.2 Fencing mesh covered with nonconductive material shall be bonded to posts requiring grounding by ~~4.15.5.1~~ 8.8.1.

~~4.15.5.3~~ 8.8.3 Gates and Gate Posts.

~~4.15.5.3.1~~ 8.8.3.1 All gate posts through which ~~vehicles~~ explosives material or personnel will pass shall be provided with a grounding electrode meeting the requirements of Section 4.12 using a main-size conductor.

~~4.15.5.3.2~~ 8.8.3.2 Class I main-size conductors buried not less than 18 in. (450 mm) in depth shall interconnect posts on opposite sides of a gate.

~~4.15.5.3.3~~ 8.8.3.3 Gates shall be bonded to their grounded support posts using a flexible secondary-size jumper.

2. *Renumber Annex A.4.15.5 as new Annex A.8.8 to read as follows:*

~~A.4.15.5~~ A.8.8 Bonding for metallic fences is meant to protect personnel who could come in contact with two parts of a metallic fence system that might become electrically charged, even unintentionally, at different potentials through faults or charge buildup through inductance or direct/indirect strikes, and who might complete the path for the charge to go to ground. The grounding for any part of a metallic fence and objects within either sideflash distance of a person who could possibly touch two parts of a metallic fence/gate at the same time is to prevent the person from becoming the path to ground (i.e., close an open circuit) for any charge buildup before or during a direct lightning strike; this includes a worst case scenario of a person with outstretched arms with or without objects they might be holding or using to close the gate, such as a tool. It is always best practice to not transit through gates when atmospheric conditions are conducive for a lightning event to occur.

If any part of a metallic fence and gatepost, whether at an ordinary or explosives facility, is within 6 ft (1.8 m) of any part of a lightning protection, (e.g., down conductor, ground rod of

an LPS), two points of bonding to the LPS are necessary.

The sideflash analysis should include the following:

- (1) Consideration of auxiliary equipment mounted on a fence (e.g., cameras, IDS, access control, mounting poles) for sideflash grounding and bonding control
- (2) A figure created that is similar to Figure 4.15.4.1
- (3) Developed sideflash/touch potential analysis processes and equations

If the gateposts are spaced such that a person can walk through and touch both gate posts [including the worst case scenario of a person with outstretched arms, a width of typically 6 ft to 8 ft (1.8 m to 2.4 m)], bonding (no mechanical connections) is necessary at the base, underground, able to be visually inspected or tested at the bond to the gate posts, and deeply enough that the bonding conductor will not be broken or disturbed by movement of the vehicle as it passes through.

If a gate is wide enough for a person to walk through and touch both gate posts with any kind of attachment or equipment they might be holding, bonding (no mechanical connections) is necessary at the base, underground, able to be visually inspected or tested at the bond to the gate posts, and deeply enough that the bonding conductor will not be broken or disturbed by movement of the vehicle as it passes through.

If a gate is wide enough that it allows a vehicle to be driven through it, grounding and bonding are necessary. Sideflash calculations can be used to evaluate the need to bond and ground.

If a gate is to be opened electronically — with codes or switches attached to an electrical source and the control interface within sideflash hazard — the gate post must be bonded to the electrical feeder to the electronics and the ground rod at the pedestal feeder must be bonded to the gate post. If the electronic switch pedestal is within sideflash distance of the gate post and any other part of the metallic fence (e.g., another post), it must be bonded to both the gate post and the next fence post that it is between or to the two fence posts it might be between. Remotely controlled gates where personnel are expected to remain within the vehicle and where the gate operator is not adjacent to the gate area (outside sideflash or touch potential hazard) can be exempted from sideflash or touch potential consideration.

Areas where fences and gates provide for personnel to gather and dwell for a given time should be considered as a source for step potential threat.

Substantiation: Section 4.15.5, Metallic Fences, was relocated in the 2026 edition of NFPA 780 from Chapter 8 to Chapter 4 with a few editorial changes. Within Chapter 8, Section 8.5, titled “Bonding”, references Section 4.15 for applicable bonding requirements. As a result of this reference structure, the relocation of metallic fence requirements to Chapter 4 introduces ambiguity regarding whether only the bonding provisions of Section 4.15 apply, or whether the additional grounding requirements contained within that section are also intended to apply in Chapter 8 applications. Chapter 8 addresses grounding and bonding considerations associated with structures and installations where effective control of lightning-related hazards is critical, due to the explosive nature of the areas protected. The current separation of metallic fence requirements from other grounding provisions in Chapter 8 increases the likelihood of misinterpretation or omission during design, installation, or enforcement, which could result in reduced effectiveness of grounding and bonding systems in higher-risk applications that apply in this chapter. Additionally, relocating Section 8.8 to Chapter 4, section 4.15.5 expands the applicability of metallic fence grounding requirements to all structures addressed within the chapter. This broader application may result in unintended consequences, including increased frequency and extent of required grounding locations in installations such as schools, athletic facilities, and campuses containing extensive fencing, gates, and perimeter enclosures. These outcomes were not historically associated with the application of Section 4.15.5 and may represent an unintended expansion of scope without corresponding safety justification.

Relocating the metallic fence requirements back to Chapter 8 restores organizational consistency and improves clarity of the standard without altering technical requirements.

Emergency Nature: The standard contains an error or an omission that was overlooked during the regular revision process. The proposed TIA intends to offer to the public a benefit that would lessen a recognized (known) hazard or ameliorate a continuing dangerous condition or situation.

This change will have an immediate and ongoing impacts on the clear and consistent application of grounding and bonding requirements for metallic fences. Installers and authorities having jurisdiction routinely rely on Chapter 8 for structures housing explosive materials. Locating metallic fence requirements outside of Chapter 8 increases the risk that these provisions will be missed, misapplied, or inconsistently enforced. Because the next full revision cycle would delay correction for several years, prompt action through a Tentative Interim Amendment is warranted to mitigate confusion, maintain continuity with prior editions and give the committee the opportunity to clarify this change for both chapter 4 and chapter 8 applications.

TENTATIVE INTERIM AMENDMENT BALLOT
EMERGENCY NATURE SELECTION OF RESPONSES

- A.** The standard contains an error or an omission that was overlooked during the regular revision process.
- B.** The NFPA Standard contains a conflict within the NFPA Standard or with another NFPA Standard.
- C.** The proposed TIA intends to correct a previously unknown existing hazard.
- D.** The proposed TIA intends to offer to the public a benefit that would lessen a recognized (known) hazard or ameliorate a continuing dangerous condition or situation.
- E.** The proposed TIA intends to accomplish a recognition of an advance in the art of safeguarding property or life where an alternative method is not in current use or is unavailable to the public.
- F.** The proposed TIA intends to correct a circumstance in which the revised NFPA Standard has resulted in an adverse impact on a product or method that was inadvertently overlooked in the total revision process or was without adequate technical (safety) justification for the action.