NENA Public Safety Communications & Railroad Interaction Standard Operating Procedures

Abstract: This document provides guidance to PSAPs and railroad control centers on best practices when interacting with each other respectively on emergency incidents that involve railroads or railroad assets.

NENA Public Safety Communications & Railroad Interaction Standard Operating Procedures

NENA-STA-013.3-2025
DSC Approval: January 9, 2024
PRC Approval: July 14, 2025
NENA Board of Directors Approval: July 14, 2025
ANSI Approval: June 9, 2026
Next Scheduled Review Date: July 14, 2030

Prepared by:
National Emergency Number Association (NENA) PSAP Operations Committee, PSAP & Railroad Interaction Working Group

1 Executive Overview

Railroads travel through tens of thousands of local jurisdictions serviced by approximately 30,000 local emergency response agencies. As a result of moving heavy equipment through multiple jurisdictions, there are incidents which require local emergency response assistance.

According to the Federal Railroad Administration [3] (FRA), in 2020 there were over 1900 highway-rail grade crossing incidents resulting in over 196 deaths and 692 injuries. Additionally, in 2020 there were over 1050 railroad trespasser incidents resulting in almost 550 deaths.

Along with almost 8765 Federal Railroad Administration reportable accidents and incidents, there are approximately 1.7 million carloads of hazardous materials transported in North America every year. Local emergency responders are required to respond to the approximately 40-50 accident-caused releases of hazardous materials and another 600–700 non-accident releases of hazardous materials every year in the US and Canada. In addition, passenger trains have health-related emergencies traveling through local jurisdictions which require medical assistance, or problems with unruly passengers which require police interaction.

Sometimes these incidents are reported by a local citizen to a local emergency response agency requiring the emergency response agency to contact the railroad. Sometimes the incident is first reported by the railroad to the emergency response agency. One key difference from other reports to and from local emergency response agencies is that the location of the incident is not tied to a specific address. The location along a railroad is dependent upon the owner of the railroad and the mile post. The mile post is a sequential mile marker (note that there are not always physical mile posts along the railroad right-of-way[1]) similar to what is on an interstate system, however, the mile posts are tied to the owning railroad's naming protocols. It is important that railroads are able to communicate the location of incidents to local emergency responders, and vice versa. In addition, most of the freight rail traffic in the US is handled by the seven larger carriers. These carriers generally dispatch traffic from central dispatch centers, and often there is no railroad office or contact located within a local jurisdiction. This means central dispatch centers cannot

[1] Railroad right-of-way are defined in 43 U.S. Code §934: "The right of way through the public lands of the United States is granted to any railroad company duly organized under the laws of any State or Territory, except the District of Columbia, or by the Congress of the United States, which shall have filed with the Secretary of the Interior a copy of its articles of incorporation, and due proofs of its organization under the same, to the extent of one hundred feet on each side of the central line of said road; also the right to take, from the public lands adjacent to the line of said road, material, earth, stone, and timber necessary for the construction of said railroad; also ground adjacent to such right of way for station buildings, depots, machine shops, side tracks, turnouts, and water stations, not to exceed in amount twenty acres for each station, to the extent of one station for each ten miles of its road."

call 9-1-1 when contacting an emergency response agency and must have a 10-digit phone number to contact the local agency. Likewise, the general public often does not know who owns the tracks on which an incident has occurred, and hence a local emergency response agency might not know that information when reporting an incident to a railroad. This document describes a protocol for communicating between railroads and emergency response agencies to make the process of getting assistance to incidents along rail lines as efficient and effective as possible.

Table of Contents

NENA
STANDARD DOCUMENT
NOTICE

This Standard Document (STA) is published by the National Emergency Number Association (NENA) as an information source for 9-1-1 System Service Providers, network interface vendors, system vendors, telecommunication service providers, and 9-1-1 Authorities. As an industry Standard it provides for interoperability among systems and services adopting and conforming to its specifications.

NENA reserves the right to revise this Standard Document for any reason including, but not limited to:

- Conformity with criteria or standards promulgated by various agencies,
- Utilization of advances in the state of the technical arts,
- Reflecting changes in the design of equipment, network interfaces, or services described herein.

This document is an information source for the voluntary use of communication centers. It is not intended to be a complete operational directive.

It is possible that certain advances in technology or changes in governmental regulations will precede these revisions. All NENA documents are subject to change as technology or other influencing factors change. Therefore, this NENA document should not be the only source of information used. NENA recommends that readers contact their 9-1-1 System Service Provider (9-1-1 SSP) representative to ensure compatibility with the 9-1-1 network, and their legal counsel to ensure compliance with current regulations.

Patents may cover the specifications, techniques, or network interface/system characteristics disclosed herein. No license is granted, whether expressed or implied. This document shall not be construed as a suggestion to any manufacturer to modify or change any of its products, nor does this document represent any commitment by NENA, or any affiliate thereof, to purchase any product, whether or not it provides the described characteristics.

By using this document, the user agrees that NENA will have no liability for any consequential, incidental, special, or punitive damages arising from use of the document.

NENA's Committees have developed this document. Recommendations for changes to this document may be submitted to:

National Emergency Number Association
1700 Diagonal Rd, Suite 500
Alexandria, VA 22314
202.466.4911
or commleadership@nena.org

2 Document Conventions

NENA: The 9-1-1 Association improves 9-1-1 through research, standards development, training, education, outreach, and advocacy. Our vision is a public made safer and more secure through universally-available state-of-the-art 9-1-1 systems and better-trained 9-1-1 professionals. Learn more at https://www.nena.org.

2.1 Document Terminology

This section defines keywords, as they should be interpreted in NENA documents. The form of emphasis (UPPER CASE) shall be consistent and exclusive throughout the document. Any of these words used in lower case and not emphasized do not have special significance beyond normal usage.

1. MUST, SHALL, REQUIRED: These terms mean that the definition is a normative (absolute) requirement of the specification.
2. MUST NOT: This phrase, or the phrase "SHALL NOT", means that the definition is an absolute prohibition of the specification.
3. SHOULD: This word, or the adjective "RECOMMENDED", means that there may exist valid reasons in particular circumstances to ignore a particular item, but the full implications must be understood and carefully weighed before choosing a different course.
4. SHOULD NOT: This phrase, or the phrase "NOT RECOMMENDED" means that there may exist valid reasons in particular circumstances when the particular behavior is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behavior described with this label.
5. MAY: This word, or the adjective "OPTIONAL", means that an item is truly optional. One vendor may choose to include the item because a particular marketplace requires it or because the vendor feels that it enhances the product while another vendor may omit the same item. An implementation which does not include a particular option "must" be prepared to interoperate with another implementation which does include the option, though perhaps with reduced functionality. In the same vein an implementation which does include a particular option "must" be prepared to interoperate with another implementation which does not include the option (except, of course, for the feature the option provides.)

These definitions are based on IETF RFC 2119 [2].

2.2 NENA Intellectual Property Rights (IPR) and Antitrust Policy

NOTE – The user's attention is called to the possibility that compliance with this standard may require use of an invention covered by patent rights. By publication of this standard, NENA takes no position with respect to the validity of any such claim(s) or of any patent

rights in connection therewith. If a patent holder has filed a statement of willingness to grant a license under these rights on reasonable and nondiscriminatory terms and conditions to applicants desiring to obtain such a license, then details may be obtained from NENA by contacting the Committee Resource Manager identified on NENA's website at https://www.nena.org/ipr.

Consistent with the NENA IPR and Antitrust Policy, available at https://www.nena.org/ipr, NENA invites any interested party to bring to its attention any copyrights, patents or patent applications, or other proprietary rights that may cover technology that may be required to implement this standard.

Please address the information to:

National Emergency Number Association
1700 Diagonal Rd, Suite 500
Alexandria, VA 22314
202.466.4911

or commleadership@nena.org

2.3 Reason for Issue/Reissue

NENA reserves the right to modify this document. Upon revision, the reason(s) will be provided in the table below.

Document Number	Approval Date	Reason For Issue/Reissue
NENA 56-507	04/28/2009	Initial Document
NENA-STA-013.2-2016	03/31/2016	Document is being reissued due to age and ANSI-approved in order to comply with industry changes and evolution.
NENA-STA-013.3-2025	07/14/2025	5-year review cycle

3 Railroad and Public Safety Answering Point (PSAP) Interaction

3.1 Railroad Contacting PSAPs

Railroads, railroad personnel, or their authorized agents may need to contact the PSAP/ECC for many reasons including, but not limited to:

- Any emergency needing response from the local law enforcement, fire department or emergency medical services (EMS)
- When an incident has occurred that could adversely affect the public
- When a train will be blocking a crossing(s) for an extended period of time, e.g., 30 minutes or more
- When railroad police/security personnel request assistance from local law

enforcement due to trespassing or similar incidents[2]

3.2 How Railroad Agents or Railroad Personnel Contact PSAPs

Railroad personnel or authorized railroad agents may contact the correct PSAP/ECC through:

- NENA Enhanced PSAP/ECC Registry and Census (EPRC) [7]
- Railroad produced contact list of verified PSAP/ECC 10-digit emergency numbers.
- Working with local PSAPs, emergency response agencies or Emergency Management Agencies to obtain the local PSAP/ECC contact information.
    - The railroad and PSAP/ECC should work together to establish a "priority" 10-digit number for the railroads and their authorized agents to contact the PSAP. This "priority" 10-digit number should be answered 24/7. It must be clear to the railroads this number is not to be shared with outside entities, agents, or personnel for any reason.
- Commercially available lists of PSAPs
    - Caution: PSAP/ECC jurisdictional areas change often due to a number of factors. Railroad personnel and authorized agents must be aware that commercially available lists of PSAP/ECC phone numbers and PSAP/ECC jurisdictional areas should always be considered suspect as emergency services boundaries are in a constant state of flux. It is recommended that Railroad personnel review any PSAP/ECC contact lists annually.

3.3 If Railroad Personnel are On-Scene

Call 9-1-1 and provide location information, either by a physical address, cross streets, nearest grade crossing or DOT number, identifiable landmarks, railroad milepost and subdivision, or longitude and latitude coordinates. Stay on the phone with the PSAP/ECC until emergency services are on scene or directed to disconnect by the PSAP/ECC.

3.4 If the Railroad Personnel or Authorized Agent is at a Centralized Location

Determine the PSAP/ECC associated with the location of the incident. Call the PSAP/ECC for the given location, and provide location information, either by a physical address, cross streets, nearest grade crossing, railroad ENS identifier, identifiable landmarks, railroad milepost and railroad subdivision, or longitude and latitude coordinates. Stay on the phone

[2] By definition, trespassers are illegally on railroad property without permission. They are most often pedestrians who walk across or along railroad tracks as a shortcut from one place to another, or they are engaged in loitering, hunting, dog walking, bicycling, or riding on all-terrain vehicles, snowmobiles, or even horseback. In most states, trespassing is codified as a property crime and a general offense. A number of the states specifically forbid trespassing on railroad property. A list of state-by-state trespassing laws is available at: https://railroads.dot.gov/

with the PSAP/ECC until emergency services are on scene or directed to disconnect by the PSAP/ECC.

3.5 Information Needed by PSAPs/ECCs

When providing information to a PSAP/ECC, avoid industry jargon or codes. Use clear text or plain English. The following questions are generic in nature and are only guidelines. The level of response will vary dependent on the situation and the PSAP/ECC's procedures. The following information should be used as a guide to assess the incident with information that should be provided to the PSAP/ECC:

3.5.1 Location of Incident

- Address, Street, Community, Landmark, longitude, and latitude, US National Grid, Cross Street(s), distance and direction from nearest rail grade crossing, or grade crossing number of incident.
- Accessibility of location
- Single railcar or multiple railcars involved in incident
- Is the train involved still moving or will it be stopping, if so where will it stop
- Current location of the engine and involved railcars
- Current location of Conductor
- Current location of any non-rail vehicles

3.5.2 Type of Incident

Do not delay initiating a call to the PSAP/ECC due to missing any of the information listed below. The lists below are recommended examples; however, PSAPs/ECCs SHOULD follow the agency's local policy for handling incidents of this nature.

- Type of response requested
    - Law Enforcement
    - Fire
    - Medical
    - Hazmat
- Nature of Incident
    - Type of Incident
        - Derailment
        - Train vs. Motor Vehicle
        - Train vs. Pedestrian/Trespasser
        - Fire or hazardous chemicals leak
        - Criminal Activity
        - Medical Emergency
    - Type of Train
        - Passenger, estimated number of passengers onboard

        - Freight, consist/manifest
        - Other (track maintenance vehicles or equipment)
- Any known injuries
    - Estimated number and extent of injuries
        - Has Cardiopulmonary Resuscitation (CPR) been initiated?
    - Where on, or in relation to, the train are the victims?
- Is the train stopped?
    - If not, where should emergency responders meet the train?
    - If stopped, where on, or in relation to, the train should responders go?
    - Has all other train traffic on the line been stopped?
- Active Fire
    - What is on fire?
    - How many train cars are involved?
- Hazardous materials involved
    - Where on, or in relation to, the train are the hazardous materials?
    - Department of Transportation (DOT) Hazmat placard number(s)
    - Hazardous material name
    - Manifest available
    - Derailed, leaking or suspect car
    - Estimated volume/rate of release
- How many cars total on the train
- Railway infrastructure damage (may or may not involve a railway incident)
- Damage to non-railway infrastructure, i.e., adjacent utilities
- Criminal Activity Incidents
    - If weapons related incident, what type of weapon is involved
    - Suspect/Victim Information
        - Name
        - Physical Descriptor - Usually from head to toe
        - Sex
        - Race
        - Hair
        - Clothing
        - etc.
- What other agencies have been notified (security, hazards, DOT, etc.)
- Additional railroad personnel dispatched and estimated time of arrival (ETA)
- Vehicle Information (this could be either suspect or victim vehicle)
    - Vehicle Description
    - C=Color
    - Y=Year
    - M=Make
    - B=Body Style

- A=Additional Descriptors
- L=License Plate
- S=State

3.5.3 Caller Information

- Name, agency, and callback number of caller
- Rail carrier involved
- Personnel on scene (and callback number if available)
- Agency's/railroad's service report number (case number, incident #)

3.5.4 Additional Incident Location Information

- Are any grade crossings blocked (footprint of incident)
- Estimate of how long grade crossings will be blocked, i.e., ETA of clearing
- Any waterway(s) affected
- Which waterways
- How affected
- Is incident near a municipality or in a rural area
- Additional hazards adjacent or within proximity of the incident i.e., chemical plants, public facilities, public access areas
- Any visible overhead facilities or structures that may be impacted
- Any barriers to reaching the incident scene that responders need to be aware of
- Conditions of the tracks, e.g., electrified, damaged rails

3.6 PSAPs Contacting Railroads

- When should a PSAP contact the railroads?
  - Any time there is an incident on, or adjacent to, the railroad right-of-way that is affected by or may affect the railroad; including but not limited to:
    - When the train may be passing through a plume of toxic or hazardous material
    - When firefighting operations may require supply lines to cross the railroad right-of-way
    - When a crime scene or on-going emergency operations are within the railroad right-of-way
    - If unsure if the incident involves or is adjacent to the railroad right-of-way and may impact railroad facilities, contact railroad companies as a precaution
  - Railroad signal malfunctions impeding traffic flow
    - Check with the railroad personnel to determine if there is a reason the signals are remaining in the down position
  - Fire and/or medical emergencies on railroad trains or property

3.7 How Should PSAP/ECC Personnel Contact Railroads

Generally, grade crossing signs have the operation control center phone numbers posted on the sign, along with a crossing number identifying the specific crossing. The table below provides the major railroad carriers names and contact numbers at the time this document was published. These numbers may change without any notice being provided to the PSAPs. These contact numbers should be verified regularly.

When making notification of a rail incident, PSAPs should contact the central dispatch center for the railroad track, as they are responsible for monitoring the traffic along that track. The railroad central dispatch center should notify the relevant railroad entities. Information may be gathered to assist in pre-planning by referencing the following:

- The blue Emergency Notification Sign posted at the highway railway grade crossing
- National Law Enforcement Telecommunications System (NLETS), updated frequently
- FRA Grade Crossing locator application

Major U.S. Railroad Operator Emergency Telephone Numbers:

Railroad	Emergency Telephone Number	Website
Amtrak	800-331-0008	www.amtrak.com
BNSF Railway	800-832-5452	www.bnsf.com
CN	800-465-9239	www.cn.ca
CPKC (CPR)	800-716-9132	www.cpkcr.com
CPKC (KCS)	800-892-6295	www.cpkcr.com
CSX Transportation	800-232-0144	www.csx.com
Norfolk Southern	800-453-2530	www.nscorp.com
Union Pacific	888-877-7267	www.up.com
Other railroads contact information may be found at:		www.aslrra.org [6]

Other railroad contact numbers are available through the Association of American Railroads at: https://www.aar.org/ [5].

3.7.1 Railroad Reference Information

It is important that PSAPs check with all the railroads in their jurisdiction and keep the information up to date annually.

PSAPs can locate information on railroads operating in their jurisdictions by visiting the Federal Railroad Administration's (FRA) website at https://railroads.dot.gov/. Grade crossing and spatial data is available from FRA as a download [4].

Additionally, AskRail, a FRA application available for desktop, iOS or Android systems provides first responders accurate, timely data about what type of hazardous materials a railcar is carrying so they can make an informed decision about how to respond to a rail emergency. For information on how to obtain access to the application, see Appendix A.

Rail Crossing Locator, is available for iOS and Android systems to quickly identify contact information for grade crossings.

FRA, in partnership with the National Law Enforcement Telecommunications System (NLETS), has developed the ability for emergency response agencies to query (RCQ) via NLETS against the FRA's Grade Crossing Inventory Records System. This provides PSAPs and emergency responders with pertinent information on requested grade crossings to assist with response and appropriate notifications. PSAPs with access to NLETS should contact their state NLETS agency for additional information. [8]

3.8 Information Provided to Railroad or Approved Agent

3.8.1 Location of Occurrence (supply as much as possible)

- City, County, State
- US DOT grade crossing number(s) for the nearest street or road crossing the tracks[3]
- What street(s) cross the tracks (if the United States Department of Transportation (USDOT) crossing number is not available), identify street name alias as well as common name IH 35 = Main St in town)
- Milepost (Railroad Subdivision if known)
- Nearest cross-street, identify street name alias as well as common name (IH 35 = Main St in town)
- Distance and compass direction from nearest crossing
- Nearest rail station (if known)
- GPS latitude and longitude

[3] The USDOT number is posted on every public and private highway-rail grade crossing. The Federal Railroad Administration (FRA) has developed a smart phone Rail Crossing Locator app . This app can be used to locate highway-rail grade crossings and then explore detailed information from the USDOT's grade crossing database(s) including inventory records submitted by states and railroads, and accident history records. Users can also select from multiple base maps and identify railroad crossings by characteristics. The app can be downloaded from https://railroads.dot.gov/highway-rail-crossing-and-trespasser-programs/crossing-inventory/rail-crossing-locator-mobile.

- Nature of the Call (Call Type)
- Do trains need to be stopped or slowed down? (If unsure, explain situation)
- Give Railroad brief details of incident on or adjacent to the railroad right-of-way
- Conditions of the tracks, e.g., electrified, damaged rails as reported by first responders

Railroad companies may share vital details concerning the affected tracks/trains that may need to be relayed to first responders.

If the incident is on the tracks, the railroad will stop trains. Do not assume railroad is shut down until confirmed by controlling railroad. Trains do not stop immediately, and all tracks should be considered live unless otherwise advised. Expect trains from either direction of a track.

Do not ask railroads to stop trains unless absolutely necessary. Stopping train traffic is more complicated than closing a freeway and can result in traffic problems for hundreds of miles immediately, and a thousand miles in a few hours.

Note: PSAPs should add railroad companies to their emergency notification procedures to make them aware of when a train may be entering a hazardous area. PSAPs should consider using Emergency Notification Systems (ENS) when there are railroad right–of-way incidents. ENS would also be useful for notifying the public when railroad equipment is blocking roadways for an extended period of time.

3.8.2 Caller Information

- Name (Last, First or Operator/Dispatcher #)
- Agency of caller
- Call back number
- Agency's service report number (case number, incident number)
- Is there an "incident commander" on site? If so, contact information
- Identify who is handling the call (which agency) and if they are on the tracks.
- Is there any other additional critical information
- Provide additional contact numbers for public safety personnel on the scene or Emergency Operation Center (EOC) personnel), if applicable
- Provide additional methods of communication, e.g., radio channels with incident command or other public safety personnel
- Railroad dispatch is authorization point for train crew to slow, stop or start up trains
- Estimated time until incident is cleared

4 Light Passenger Rail

Light Rail systems are a transit mode that is typically an electric railway with a light volume traffic capacity compared to heavy rail and are characterized by:

- Passenger rail cars operating singly (or in short, usually two cars, trains) on fixed rails in shared or exclusive rights-of-way
- Low or high platform loading
- Vehicle power drawn from an overhead electric line via a trolley or a pantograph

Light rail systems are covered under the Federal Transit Administration, and as such, this standard does not presently apply to light rail agency interaction.

PSAPs SHOULD utilize this standard in developing responses and best practices with their local light rail agency.

5 Training Recommendations

5.1 PSAP/ECC

No-cost training materials are available for download for training PSAP/ECC personnel and educating PSAP/ECC communities from the FRA and Operation Lifesaver, Inc. [9] These materials can be found on their websites. FRA has developed a first responder resource page that contains valuable information for PSAPs/ECCs. Those resources can be found on the "Law Enforcement/First Responder Resources" page on the FRA website at https://railroads.dot.gov. Operation Lifesaver's web page can be viewed at www.oli.org.

It is recommended that the material contained within this NENA standard document be incorporated into Telecommunicator training materials. When developing training materials consideration should be given to including field personnel.

5.2 Railroad

Railroads should be made aware of this document and material. This material should be incorporated into the training of railroad personnel that may interact with PSAPs/ECCs

6 Frequently Asked Questions (FAQs)

Are the RRs private or publicly owned?

The vast majority are privately-owned and railroad property should be considered private property.

Are the train and the tracks always owned by the same company? If different, who do we contact?

Sometimes trains operate on tracks controlled by other railroads under trackage rights or haulage rights. Most agreements assign emergency response to the railroad which controls the tracks, so the controlling railroad should be contacted in the event of an emergency. The controlling railroad will get the operating railroad involved as appropriate. The contact number on the blue ENS signs posted along the tracks will direct PSAPs/ECCs to the controlling railroad dispatch center.

What is a US DOT Number?

A crossing inventory number containing six digits followed by an alphabetical letter. The number is like a "street-name sign" and should be posted on both sides of the crossing on the signal mast, crossbuck post, signpost or pole, or it could even be spray painted on a railroad tie.

What is ENS?

This standard refers to two (2) distinct types of Emergency Notification Systems (ENS).

Emergency Notification Systems (ENS) utilized by PSAPs/ECCs are software-based systems used to notify the public of an emergency. These systems may include changeable message signs, sirens, telephone, and other media. These systems enable the PSAP/ECC to make mass notification to their community of incidents that may impact citizen safety, e.g., IPAWs.

Emergency Notification Systems (ENS) utilized by the railroad include the blue signs posted at highway-rail grade crossings. The purpose of the ENS sign is to provide the public with critical emergency contact information at every highway-rail grade crossing. The information contained on the ENS sign enables the public to reach the railroad responsible for the crossing and to identify the specific crossing in the event of an emergency.

Where can the PSAP/ECC find railroad milepost information?

PSAPs/ECCs can contact the Federal Railroad Administration for spatial data containing milepost data. This data should be validated locally.

Which location should PSAPs/ECCs dispatch field responders to?

A rule of thumb is that it takes a mile to stop a freight train. PSAPs/ECCs should be aware that there may be more than one location to dispatch field responders as the initial incident location and the response location(s) may end up being quite a distance apart depending on the speed/weight of the train. Personnel may be needed at multiple locations.

7 Impacts and Considerations

This document provides guidance and relevant information for operational interaction between Public Safety Answering Points (PSAPs)/Emergency Communications Centers (ECCs), railroad call centers, railroad-sworn personnel in the field, and related railroad responders.

PSAPs/ECCs may receive emergency calls from railroad call centers, railroad-sworn personnel or similar parties relating to railroad incidents. PSAPs/ECCs must interact with railroad call centers and other railroad personnel when the PSAP/ECC becomes aware of an incident requiring emergency assistance involving a railroad.

Emergency response agencies generally respond to calls from the public by responding to an address or street intersection. Railroad incidents generally do not have a street address and instead use a mile post, cross street or crossing identification system to describe their location. Railroad dispatch centers and operations control centers are generally centrally located. This means a railroad responding to, or reporting an emergency, may be located in a state other than where the incident occurred.

This poses communication challenges to the railroads and local emergency response agencies. These challenges can be overcome by having proper communication protocols in place before an accident/incident occurs. This document defines an effective communication protocol between railroads and local emergency response agencies.

This Standard is intended to aid PSAPs/ECCs, railroad communication centers, and railroad personnel in the development and implementation of standard operating procedures for emergency communications protocols pertaining to railroad related emergencies.

7.1 Operations Impacts Summary

Unfamiliarity with railroad nomenclature and processes may cause miscommunication between agencies. Creating, implementing, and training PSAP/ECC personnel to standard operating procedures will allow effective communications with railroad personnel.

This will require PSAPs/ECCs to develop operational policies for managing railroad personnel interactions, as well as incorporate new techniques into telecommunicator training curriculum. This may create new or additional tasks for telecommunicators that will impact a PSAP's current operations. PSAP/ECC management should identify, review, and address all potential operational interactions with railroad personnel, in order to provide telecommunicators with the proper tools and processes to effectively interact. These tools may include training, procedure development, and implementation of procedures.

7.2 Technical Impacts Summary

PSAPs/ECCs should have Internet access to obtain web-based services that contain railroad related-information.

[1] PSAPs/ECCs should integrate relevant railroad spatial data into their map displays. If integrated, it is recommended that those datasets be checked annually for updates, or when made aware of changes in the railroad industry. For current datasets visit the FRA's GIS Crossings & Publicly Available GIS Data. https://data-usdot.opendata.arcgis.com/search?tags=Rail

Local grade crossing information, available from the FRA, needs to be verified to ensure it aligns with existing GIS data. Discrepancies in positional accuracy between PSAPs/ECCs and the railroad spatial data should be reported to the Federal Railroad Administration.

PSAPs/ECCs should have access to the National Law Enforcement Telecommunications System (NLETS), to query against the FRA's Grade Crossing Inventory Records System. This provides PSAPs and emergency responders with pertinent information on requested grade crossings to assist with response and appropriate notifications.

7.3 Security Impacts Summary

The railroads may have PSAP/ECC 10-digit numbers that are not intended for public knowledge and should not be shared with any other agencies or the general public. PSAPs may have confidential information related to railroad operations and contact information that must also be considered private and confidential. To ensure responder safety, all information shared between the PSAP/ECC and railroad personnel should be considered confidential and for official business only.

If there are any questions in regard to a caller being a PSAP/ECC employee or a railroad employee, the agency should follow their established procedures for verifying the identity of a caller.

7.4 Recommendation for Additional Development Work

This document is intended to provide support to public safety and railroad personnel during incidents on, or near, railroad properties and related rights-of-way. There may be a need for development of additional operations or technical standards as a result of this Standard.

At the time of publication of this standard, the U.S. Department of Transportation has issued a Notice of Proposed Rule Making (NPRM) that may impact the method and frequency of notifications to the PSAPs and first responders by railroad operators associated with a rail incident. PSAPs should monitor the progress of the NPRM to expand the availability of incident information for first responders.

Evolving technology will require this Standard to be revisited yearly to determine if additional information needs to be added or obsolete information removed from this standard.

7.5 Anticipated Timeline

The promotion of this standard by NENA, 9-1-1 entities, and specific Federal entities will assist in this standard gaining acceptance.

7.6 Cost Factors

The promotion of this standard by NENA, 9-1-1 entities, and specific Federal entities will assist in this standard gaining acceptance.

7.7 Cost Recovery Considerations

Normal business practices applicable to the local PSAP/ECC or 9-1-1 AHJs shall be assumed to be the cost recovery mechanism.

7.8 Additional Impacts (non-cost related)

The information and requirements contained in this NENA document may have PSAP/ECC operational impacts.

8 Abbreviations, Terms, and Definitions

See the NENA Knowledge Base (NENAkb) [1] for a Glossary of terms and abbreviations used in NENA documents. Abbreviations and terms used in this document are listed below with their definitions.

Term or Abbreviation (Expansion)	Definition / Description
AHJ (Authority Having Jurisdiction)	A State, County, Regional, or other governmental entity responsible for 9-1-1 service operations. For example, this could be a county/parish or other local government, a special 9-1-1 or Emergency Communications District, a Council of Governments, or other similar body. Note: NFPA has a broader definition of AHJ to encompass the governmental entities that have responsibility for setting and enforcing standards.
AAR (Association of American Railroads)	The Association of American Railroads is a membership organization comprised of railroad organizations in the United States, Canada and Mexico. AAR is a railroad policy, research, standard setting and technology organization focused on the safety and productivity of the U.S. freight rail industry. (see American Association of Railroads)
Consist	A group of rail vehicles that make up a train.
CPR (Cardiopulmonary Resuscitation)	CPR (Cardiopulmonary Resuscitation) is an emergency lifesaving procedure performed when the heart stops beating. Immediate CPR can double or triple chances of survival after cardiac arrest. (see American Heart Association)
DOT (Department of Transportation)	DOT (Department of Transportation) is an executive level United States entity charged with the administration of the

Term or Abbreviation (Expansion)	Definition / Description
	transportation programs of the federal government. DOT develops and recommends national transportation policies and programs under the direction and approval of the President and Congress (see Department of Transportation Act on October 15, 1966)
ECC	ECC (Emergency Communications Center) is a facility designated to receive and process requests for emergency assistance, which may include 9-1-1 calls, determine the appropriate emergency response based on available resources, and coordinate the emergency response according to a specific operational policy. Note: The term "ECC" does not have the same meaning as "PSAP."
EMS (Emergency Medical Service)	EMS (Emergency Medical Service) is a service providing out-of-hospital acute care and transport to definitive care, to patients with illnesses and injuries which the patient believes constitute a medical emergency.
ENS (Emergency Notification System)	Emergency Notification System is a general category for any system used to notify persons or devices of an emergency. May include changeable signs, sirens, telephone and other media. Emergency Notification Systems utilized by the railroads means a system in place by which a railroad receives, processes, and responds to telephonic reports of an unsafe condition at a highway-rail or pathway grade crossing. An Emergency Notification System includes the following components: (1) The signs, placed and maintained at the grade crossings that display the information necessary for the public to report an unsafe condition at the grade crossing to the dispatching railroad by telephone. (2) The method that the railroad uses to receive and process a telephone call reporting the unsafe condition. (3) The remedial actions that a railroad takes to address the report of the unsafe condition; and (4) The recordkeeping conducted by a railroad in response to the report of the unsafe condition at the grade crossing.

Term or Abbreviation (Expansion)	Definition / Description
EOC (Emergency Operations Center)	EOC (Emergency Operations Center) is a central command and control facility responsible for carrying out the principles of emergency preparedness and emergency management, or disaster management functions at a strategic level during an emergency, and ensuring the continuity of operation of a company, political subdivision, or other organization.
ETA (Estimated Time of Arrival)	The estimated time of arrival (ETA) is the time when a ship, vehicle, aircraft, cargo, emergency service, or person is expected to arrive at a certain place.
FRA (Federal Railroad Administration	FRA (Federal Railroad Administration) was created by the Department of Transportation Act of 1966; it is one of ten agencies within the U.S. Department of Transportation concerned with intermodal transportation. The FRA's mission is to enable the safe, reliable, and efficient movement of people and goods for a strong America, now and in the future.
GIS (Geographic Information System)	GIS (Geographic Information System) is a system for capturing, storing, displaying, analyzing, and managing data and associated attributes which are spatially referenced.
NLETS (National Law Enforcement Telecommunications System)	NLETS (National Law Enforcement Telecommunications System) is a not-for-profit computer-based message switching system that links together and supports every state, local, and federal law enforcement, justice, and public safety agency for the purposes of sharing and exchanging critical information. (see NLETS)
Pantograph	A jointed framework conveying a current to a train, streetcar, or other electric vehicle from overhead wires.
PSAP	PSAP (Public Safety Answering Point) is a physical or virtual entity where 9-1-1 calls are delivered by the 9-1-1 Service Provider.
US DOT Grade Crossing Number	A crossing inventory number containing six digits followed be an alphabetical letter.

9 References

[1] National Emergency Number Association. "NENA Knowledge Base Glossary." Updated June 16, 2022. https://kb.nena.org/wiki/Category:Glossary.

[2] Internet Engineering Task Force. *Key words for use in RFCs to Indicate Requirement Levels.* S. Bradner. RFC 2119, March 1997.

[3] Federal Railroad Administration (FRA) website. https://railroads.dot.gov/. Search for these terms:
- Railroad Crossings
- GIS Web Applications
- State Laws for Highway-Rail Grade Crossings
- Law Enforcement/First Responder Resources

[4] FRA's GIS Crossings & Publicly Available GIS Data. https://data-usdot.opendata.arcgis.com/search?tags=Rail.

[5] Association of American Railroads (AAR) website: https://www.aar.org/.

[6] American Short Line Railroad Association (ASLRRA) website. https://aslrra.org.

[7] NENA Enhanced PSAP/ECC Registry and Census (EPRC): https://eprc-nena.hub.arcgis.com/pages/nena-eprc. Access limited, contact NENA to create user accounts to access information.

[8] NLETS Message Keys. https://www.nlets.org/resources/maps/message-keys/key.

[9] Operation Lifesaver website, rail safety education for the public. www.oli.org.

Appendix A: How to Get AskRail

The freight rail industry encourages your state and local Emergency Communications Centers (ECCs) to integrate AskRail into operations. Railroads can assist in this process.

1. Download the app from the Google Play Store, the Apple App Store or the Windows Desktop Application. For additional options such as a webapp version contact 1-877-724-5462 or support@askrail.us
2. Complete the registration process in the app on your device. Use a registration email dedicated to the ECC that will not change with staffing. Select the primary Class I Railroad that serves your area and submit for approval.
3. Once you receive a confirmation email and click the verification link your application will be sent for approval. Contact the above number or email for assistance in expediting approval.
4. You will also receive an overview PowerPoint to help train you and your staff on using the app.

ACKNOWLEDGEMENTS

The National Emergency Number Association (NENA) PSAP Operations Committee, PSAP & Railroad Interaction Working Group developed this document.

NENA recognizes the following industry experts and their employers for their contributions to the development of this document.

Members	Employer
Pete Eggiman, ENP Committee Co-Chair	Eggimann Technology Services, LLC
Sandra Dyre, ENP Committee Co-Chair	NENA: The 9-1-1 Association
Lisa Dodson, Working Group Co-Chair	Motorola Solutions Inc
Marc Berryman, Working Group Co-Chair	Consultant
Stephen Bunker	State of Maine
Rebekah Craft	Roanoke County VA
Francis D'Huyvetter	Eaton County MI
Cameron Dunbar	Commonwealth of Massachusetts
Michail Grizkewitsch	Federal Railroad Administration
Jason Leverton	City of DeKalb IL
Cory Lynch ENP	La Crosse County WI
Bob Oenning, ENP	Consultant
Joel Peterson	UMC (University Medical Center) EMS TX
Brad Reinert, ENP	Montgomery County Department of Public Safety, PA
Joseph Thompson	Huntingdon County PA
Terry Williams	Cumberland County Emergency Communications District TN

Special Acknowledgements:

Delaine Arnold, ENP (dec.), and Sandy Dyre, ENP, Committee Resource Managers, have facilitated the production of this document through the prescribed approval process.

The PSAP & Railroad Interaction Working Group is part of the NENA Development Group that is led by:

- Wendi Rooney, ENP, and Lisa Dodson, ENP, Development Steering Council Co-Chairs
- Brandon Abley, ENP, Technical Issues Director
- April Heinze, ENP, 9-1-1 and PSAP Operations Director