

**STATE OF NEW HAMPSHIRE  
SITE EVALUATION COMMITTEE**

Docket No. 2015-01

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In re: )  
SEA-3, INC., )  
Request for Exemption )

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**Testimony of Stephen Sawyer, Frederick Fraini and Robert Davids, Sebago Technics**

**For  
Peter Roth, Counsel for the Public, New Hampshire Department of Justice**

**Please state your name, profession and business address.**

My name is Stephen S. Sawyer, Jr. I am a principal at Sebago Technics in South Portland, Maine. I am a licensed professional engineer, and for the past 40 years I have specialized in Transportation Engineering.

My name is Robert Davids. I am a principal at Sebago Technics in South Portland, Maine. I am a professional track design advisor and railroad inspector. From July 1978 until June 2003 I was a Railroad Safety Inspector – Track for the U.S. Department of Transportation. Prior to that I was employed for 15 years by the Delaware and Hudson Railroad in a variety of positions.

My name is Frederick D. Fraini, Jr. I am a principal with Sebago Technics in South Portland, Maine. I am a Special Railroad Consultant. From July 2003 until April 2013 I was a Supervisory Railroad Safety Specialist with the Federal Railroad Administration. Prior to that I was employed by the U.S. Department of Transportation as an Assistant Crossing & Trespasser Regional Manager. Prior to that I was employed by the Boston & Maine Railroad Police Department.

**What is the purpose of your testimony?**

We have been retained by Peter Roth, Counsel for the Public to provide an independent assessment of certain safety issues associated with the Sea-3 project and the Portsmouth Newington Industrial Track (the “Track”) used by it to deliver liquefied propane gas to Sea-3’s facility in Newington, New Hampshire..

**What are your qualifications for assessing safety at the facility and rail line?**

Our resumes are provided as an appendix to our report. Collectively we have over 100 years of experience in evaluating safety issues associated with railroad operations and the handling of LPG in railroad facilities.

**Please explain how you evaluated safety at the facility and rail line?**

As explained in greater detail in our Safety Assessment – Sea 3, Inc. Expansion of Propane Shipments report, dated September 16, 2015 (the “Report”), we reviewed a large amount of safety data about the facility, the Track and railroads in general, we visited the facility, inspected records there and consulted with Sea-3’s employees. We reviewed portions of the record in this case, chiefly testimony filed by Sea 3. We inspected the Track from Rockingham Junction to the Sea-3 facility, and we visited with and inspected records at Pan Am.

**Please summarize your conclusions concerning safety of the Sea 3 facility and the rail line.**

As it is presently configured and operated, the Sea 3 facility and the Track, appear generally to be in compliance with applicable safety regulations of the Federal Railroad Administration, and they appear to have a generally safe record of operation from the data we obtained. While additional facilities at Sea-3 and increased traffic on the Track may raise additional and increased safety risks, we cannot opine about those due to a lack of operating history and a clear understanding of the reconfigured project.

Of primary concern at present is that first responders in the area lack adequate training, resources and coordination to effectively respond to much more than a minor incident at the facility or on the Track. In addition, while grade crossings along the Track are , for the most part, in compliance with applicable rules, additional volumes of traffic along the Track may increase risks associated with vehicle and train encounters. Local governments are primarily responsible for ensuring safe crossings and warning systems and they may wish to consider whether additional enhanced safety systems at those crossing should be installed and operated.

Safety Assessment – Sea 3 Inc. Expansion of Propane Shipments



Sebago Technics, Inc.  
September 16, 2015

## Executive Summary

Sebago Technics, Inc. (Sebago) was retained by Counsel for the Public, appointed pursuant to RSA 162-H:9, to conduct an independent safety assessment of Sea 3's proposal to expand its propane storage and transloading facilities at its waterfront marine terminal in Newington. This proposal is before the State's Site Evaluation Committee and this Report is aimed at providing supporting technical information to the Committee in its deliberations on this matter. The Sea 3 proposal will increase rail shipments of propane to its terminal over Railroad tracks owned by Pan Am Railways. As such this Report includes an assessment of these facilities, as well, from Rockingham Junction in Newfields to the Sea 3 terminal in Newington, a distance of approximately 13 miles.



The scope of this Study was developed in consultation with the Counsel for the Public and includes the following tasks:

1. A description and site inspection of rail segments between Rockingham Junction and Sea 3, including a review of the Federal Railroad Administration's (FRA's) accident records on reportable train accidents on these segments.
2. An inspection of track facilities within the Sea 3 Terminal and review of past records and inspection and maintenance of these facilities.
3. A review of Hazardous Materials Programs and Procedures at both the Sea 3 Terminal and along the Pan Am tracks as they relate to proposed deliveries to the Sea 3 Terminal from Rockingham Junction. In addition, a database review into LPG risk assessments by USDOT, NRC, FRA, PHMSA, and NAR.
4. A review of FRA's Highway Grade Crossing Inventory to determine accident history and accident prediction data, as well as a site inspection of all existing grade crossings.
5. A review of USEPA's Risk Management Plan database and the USCG's operating and emergency procedures records regarding the existing Terminal's operation and safety performance. A review of the Sea 3 facility improvement plans and proposals concerning potential safety issues at the facility as proposed.
6. Conduct meetings with emergency response staff in the following communities – Dover, Newington, Portsmouth, Stratham, Greenland, and Newfield to determine their

preparedness in the event the Project moves forward and what education and/or equipment may be needed to handle potential incidents with LP gas.

This Report is organized in Sections, each addressing the six above-described tasks. A summary of our findings and recommendations resulting from this investigation follows:

1. The Pan Am Track servicing the Sea 3 Terminal is considered a Class 1 route with an allowable maximum speed of 10 miles per hour.
2. A site inspection of the Portsmouth and Newington Industrial Tracks did not reveal any conditions which would render them out of compliance with the requirements for Class 1 track under the Federal Track Safety Standards. There was evidence of recent significant track facilities improvements, i.e. new crossties and ballast; and the rails themselves had been inspected by an independent agency in 2014 and 2015.
3. Pan Am's Bridge Management Records revealed that inspections were being conducted annually, and that underwater inspections had been performed within the past three years. No structural deficiencies were noted.
4. A review of the train accident records for the Portsmouth and Newington Industrial Tracks from 1999 through 2014 indicated that there had not been a reportable train accident on these two rail lines in the last fifteen years.
5. A site inspection of the railroad tracks within the Sea 3 Terminal was made and did not reveal anything out of compliance with Class 1 railroad safety standards. There was evidence of recent maintenance work on these tracks, but no official inspection records were available. As such, it is our recommendation that Sea 3 initiate a formal annual rail inspection program.
6. Meetings were conducted on August 18, 2015 with Pan Am Railway officials, and, on September 3, 2015, with SEA-3 officials to review their Hazard Materials Programs and Procedures. As a result of those meetings, it appears that both entities were in compliance with the USDOT Hazardous Materials Regulations.
7. Pan Am Railways provided us their New England LPG Distribution Map, which indicates that there are a total of 30 rail distribution points, including Sea 3, in Maine, New Hampshire, Vermont and Massachusetts presently.
8. Several national databases were researched for information regarding the potential risks associated with the transport of LPG gas via rail. We found that nationally in 2015 there were twenty-one LPG incidents involving rail transportation with twenty of those classified as non-accident releases (NAR's), and, one as a result of a derailment. In New Hampshire there have been no rail LPG HazMat incidents between 2010 and 2015. Pan Am Railways has had two NAR's involving LPG - one in 2008 in MA and the other in 2010

- in ME. Both incidents were attributed to the shipper preparation and no injuries were recorded with either incident.
9. A site inspection of all public highway-rail grade crossings was performed along the Portsmouth Industrial Branch and the Newington Industrial Branch lines and all appeared to be in compliance with Federal Highway regulations.
  10. A review of Sea's Risk Management Plan revealed that the facility appears to be in compliance with all current EPA regulations.
  11. Meetings with local area emergency response staff revealed that additional training specific to an LPG incident, including coordination among responders, the railroad and the facility, is necessary, as there is limited knowledge with regard to this type of incident in the area presently.

Sebago's staff that performed this Study were Fred D. Fraini, Jr., Robert Davids, and Stephen Sawyer, Jr. Messrs. Fraini and Davids were the primary investigators and Study authors, with Mr. Sawyer providing final report editing. Resumes of all three individuals are contained in Appendix I at the rear of this Report.

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## Section 1 - Pan Am Railroad Track - Rockingham Junction to Sea 3

### 1.1 Description of the Infrastructure

Rail freight service to the Sea-3 facility is provided by Pan Am Railway. Access is via a railroad line beginning at Rockingham Junction, a railroad connection located in the Town of Newfields, New Hampshire. Rockingham Junction is the connection to Pan Am's Freight Main Line, the principal route between Portland, Maine and the Greater Boston area. The Freight Main Line is also the route of the Amtrak Downeaster passenger train.

From Rockingham Junction, a secondary line named the Portsmouth Industrial Track continues 10 miles to the City of Portsmouth, New Hampshire. In Portsmouth, a small freight yard used for storage and switching of freight cars connects the Portsmouth Industrial Track with the Newington Industrial Track. The Newington Industrial Track extends 3 miles to and beyond the Sea-3 facility.

See Figure 1 – Study Area on the following page.

There is no train control signal system in place on the Portsmouth and Newington Industrial Tracks. Train operations are controlled as described in the following section.

### 1.2 Railroad Operations

Pan Am Railway is a member of the Northeast Operating Rules Advisory Committee (NORAC), an organization comprised of numerous railroads. NORAC provides written rules, which govern how operations of trains and other on-track equipment are conducted on member railroads.

Train occupancy and operation on the Portsmouth Industrial Track is authorized verbally by a train dispatcher located at Pan Am Railway headquarters in North Billerica, Massachusetts. NORAC operating rules specify how the communications between train crews and dispatchers are conducted and recorded. These operating rules are designed to provide protection from train collisions or unauthorized operations on lines such as the Portsmouth Industrial Track.

Trains operate in Portsmouth Yard and on the Newington Industrial Track under the requirement that the train be able to stop within one half of the range of vision.

Other on-track equipment such as hi-rail vehicles and maintenance machinery occupy and move on these industrial tracks under the same rules and procedures as trains.

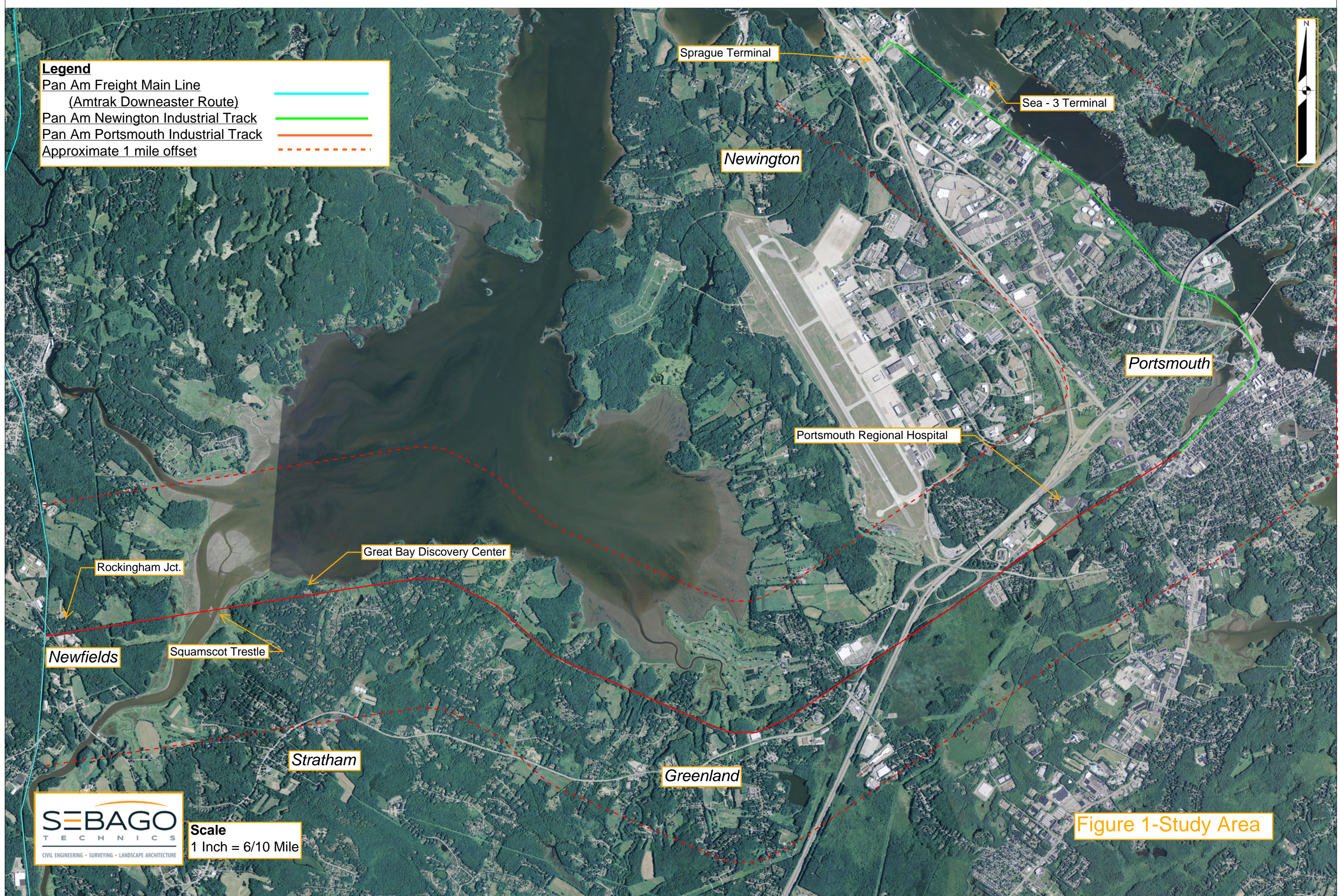
The maximum authorized speed for trains and other on-track equipment on the Portsmouth and Newington Industrial Tracks is 10 miles per hour.

A train entering Rockingham Junction (CPF 256) from the Portsmouth Industrial Track does not directly enter the single track of the Freight Main Line. That train, after receiving authorization, passes over a crossover which connects the Freight Main Line to a controlled siding. The train enters the controlled siding which is parallel to and east of the Freight Main Line. The controlled



**Legend**

- Pan Am Freight Main Line (Amtrak Downeaster Route) —
- Pan Am Newington Industrial Track —
- Pan Am Portsmouth Industrial Track —
- Approximate 1 mile offset - - -



**Scale**  
1 Inch = 6/10 Mile

Figure 1- Study Area

siding extends approximately two miles westward to CPF 258, where a turnout connects it to the Freight Main Line.

The Freight Main Line carries five westbound and five eastbound Amtrak Downeaster passenger trains each day. Annual ridership on this service is approximately 500,000 passengers. These trains operate at up to 79 miles per hour. Pan Am Railways operates approximately four to six freight trains on this same route daily. Pan Am's trains operate at up to 40 miles per hour.

Sea-3 has proposed expanding its facility to be able to connect 16 tank cars at one time. Sea-3 anticipates having Pan Am Railways continue to deliver and place tank cars once per day. If the maximum of 16 tank cars were delivered in one day, it would not necessarily increase the frequency of one daily round trip between Rockingham Junction and Sea-3. However, there is nothing to prohibit the Railroad from making additional trips to Sea-3 with fewer tank cars per trip if there was reason to do so.

### **1.3 Track Maintenance and Safety**

The track owner, in this case the Boston and Maine Railroad, owned by Pan Am Railways, is responsible for the inspection, maintenance and safety of its tracks.

The United States Department of Transportation, Federal Railroad Administration has promulgated rules which address track inspection, maintenance and safety. Those rules, contained in 49CFRPart 213, are known as the Federal Track Safety Standards.

There are nine classes of track contained in the Federal Track Safety Standards. Track is classified according to the maximum operating speeds of trains set by the track owner. Each track class has specific conditional and inspection requirements addressed in the Federal Track Safety Standards.

The maximum authorized speed of freight trains operating on the Portsmouth and Newington Industrial Tracks is 10 miles per hour. That maximum speed puts those rail lines in Class 1 of the Track Safety Standards. Passenger trains are not operated on these lines presently.

The Track Safety Standards also require the track owner to conduct regular inspections of all tracks on which trains operate. Those inspections must be conducted by individuals who meet minimum requirements for experience/education and who have been designated as qualified by the track owner.

The Track Safety Standards also specify the minimum frequency of the track inspections. Class 1 main tracks must be inspected at least weekly, or before being used if train frequency is less than weekly. Tracks other than main tracks and sidings, such as yard tracks, must be inspected monthly. Also, "in the event of fire, flood, severe storm or other occurrence which might have damaged track structure, a special inspection shall be made of the track involved as soon as possible after the occurrence and, if possible, before the operation of any train over that track".

The Federal Railroad Administration employs Track Safety Inspectors who monitor the track owner's compliance with the Track Safety Standards. The Track Safety Inspector conducts

compliance inspections of track within his or her assigned territory to determine if the track owner's inspections identify conditions which do not comply with the Standards. The Track Safety Inspector also determines whether the track owner is taking proper remedial action for any conditions which do not comply with the Standards. The Track Safety Inspector also reviews the inspection records maintained by the track owner to determine if the inspections are being made and recorded as required and that defects recorded by the track inspector are receiving remedial action.

The New Hampshire Department of Transportation also employs a Track Safety Inspector who has been certified by the Federal Railroad Administration. That inspector has the same authority to enforce the Track Safety Standards as federal inspectors.

#### **1.4 Bridge Safety**

The Federal Railroad Administration has promulgated rules which address the safety of railroad bridges. Those rules are contained in 49CFR Part 237.

Those rules require track owners to have a bridge management program which addresses the safe use, inspection, maintenance, modification and oversight of railroad bridges.

Track owners must designate qualified bridge engineers, bridge inspectors and bridge supervisors. Track owners must also determine the safe load carrying capacity of each of its railroad bridges.

Railroad bridges must be inspected at least once in each calendar year. A railroad bridge must be inspected more frequently if a railroad bridge engineer determines that it is necessary, based on data from previous inspections, etc. Bridges must also be inspected after an occurrence which might have affected the ability of the bridge to function safely - such as a storm, flood, fire, impact from a vehicle or boat, etc.

Track owners must keep a record of each bridge inspection performed.

#### **1.5 Reportable Train Accidents on the Portsmouth and Newington Industrial Tracks**

The Federal Railroad Administration requires railroads to submit reports of train accidents which exceed a specific threshold for damages in dollars. That threshold currently is \$10,500 in damage to rolling stock (cars and locomotives) and track. That threshold has increased over years due to inflation.

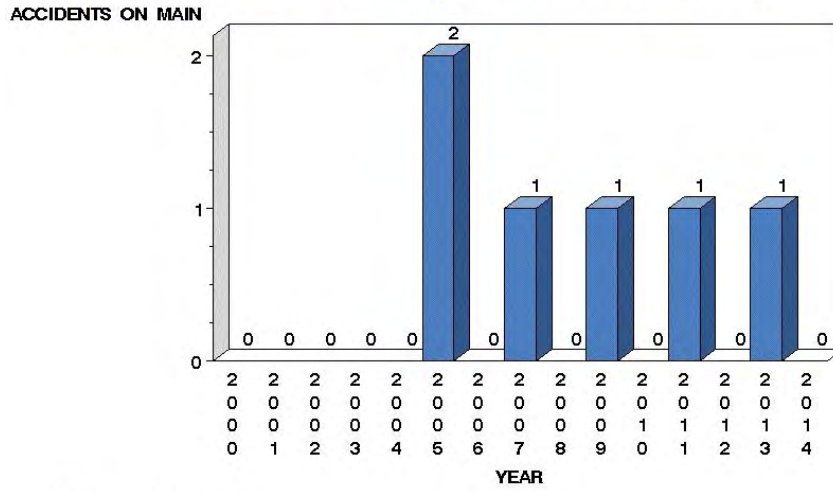
A review of the train accident records for the Portsmouth and Newington Industrial Tracks from 1999 through 2014 indicated that there had not been a reportable train accident during this fifteen year period.

For context, the FRA Office of Safety Analysis publishes reportable train accident data for all of NH and Figures 2 and 3 provide this information for all NH trackage (2000 through 2014) and for just mainline trackage (2000 through 2014).

Figure 2

### TOTAL TRAIN ACCIDENTS ON MAIN TRACK

FOR NEW HAMPSHIRE, January — December (ALL YEARS)

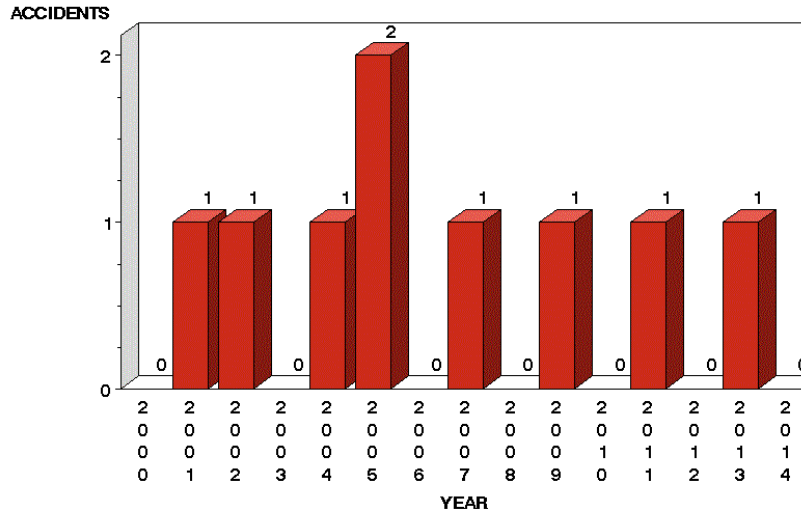


Excludes highway— rail

Figure 3

### TRAIN ACCIDENTS

FOR NEW HAMPSHIRE, January — December (ALL YEARS)



Excludes highway— rail

## 1.6 Inspection of the Portsmouth and Newington Industrial Tracks

An inspection of the Portsmouth Industrial Track, the main track through Portsmouth Yard and the Newington Industrial Track up to the Sea-3 facility was conducted on September 4, 2015. That inspection was performed by Robert Davids, a Sebago Technics employee with over 50 years of experience in railroad engineering, safety and inspection.

The September 4 inspection was performed using a hi-rail vehicle and was accompanied by three representatives of the Engineering Department of Pan Am Railways. The inspection did not reveal any conditions which did not comply with the requirements for Class 1 track under the Federal Track Safety Standards.

The inspection found that there had been significant recent track work performed on the routes inspected. The Pan Am Railways representatives shared data on the work performed. During the 2014 work season, 3,794 crossties were replaced with new crossties, 105 pieces of switch timber were replaced and 2,975 tons of stone ballast was applied to the track. The entire route was resurfaced with a tamper/liner, with some areas receiving more than one pass of the tamper/liner.

In 2014, Sperry Rail Service, a rail inspection contractor, performed two inspections of the rail on these routes, marking any rail which contained a defect. In 2015, the rail was again inspected by Sperry Rail Service.

The September 4 inspection found that additional track work would be necessary to bring track conditions into compliance with a track class higher than Class 1. At a minimum, additional crosstie renewals, rail joint maintenance and track geometry (track gauge, surface and alignment) improvements would be required. The scope of this study did not include quantifying the extent of upgrades needed to meet FRA Class 2 track.

## 1.7 Pan Am Inspection Records

Track owner inspection records for the Portsmouth Industrial Track, the Newington Industrial Track and Portsmouth Yard for 2015 were examined. Those inspection records indicated that the Pan Am inspector was identifying and recording both noncomplying conditions as well as other conditions of concern. The records also indicated that proper remedial action had been taken on those items.

## 1.8 Pan Am's Bridge Management Program

Pan Am Railways bridge inspection force is conducting annual inspections of the railroad bridges on the route from Rockingham Junction to Sea-3. Underwater inspections have been performed within the past three years.

The bridge inspections have not revealed any significant structural deficiencies. Items identified by the inspections have been corrected through routine maintenance. There have been no bridges found to need inspections more frequently than once a year.

## 1.9 Environmental Concerns

A concern has been raised regarding leakage of petroleum products such as fuel or lubricants from trains operating on these routes.

During the inspection, it was noted that Pan Am Railways has installed fabric designed to contain any leakage where locomotives are parked in Portsmouth and at Rockingham Junction. At the time of the September 4 inspection, a locomotive was seen stationary in Portsmouth and it was parked over that fabric.

Mr. Davids looked for evidence of leakage of petroleum as he conducted on-ground inspections of the track and did not find any. We have no way of quantifying the amount of petroleum, which may escape during train operations, or in the event of a derailment or other incident.

## Section 2 – Railroad Track within the Sea 3 Terminal

### 2.1 On-Site Track Inspection

On September 3, 2015, Mr. Davids conducted a walking inspection of the track facilities owned and maintained by Sea-3. During that inspection, Mr. Davids did not find any items which did not comply with Class 1 under the Federal Track Safety Standards.

In response to a request for records of track maintenance, a representative of Sea-3 provided documentation of track maintenance that was performed in 2015. A track contractor installed 90 new crossties, gauged the track and performed track surfacing as necessary.

### 2.2 Recommendations

The representatives of Sea-3 provided documentation of recent maintenance work on the tracks owned by Sea-3, but no records of inspection of those tracks were available.

Although the Federal Track Standards do not specifically require periodic inspection of private industry track, inspections by a qualified inspector will enhance the safe use of those tracks.

It is recommended that Sea-3 arrange for inspection of the track facilities that it owns, on a frequency of at least once per year, and document these findings.

## Section 3 – Review of Hazardous Materials Programs and Procedures and LPG Risk Assessment Research

### 3.1 Overview

The United States Department of Transportation's (USDOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) is the primary source of statistical data record keeping, promulgation of regulations, enforcement activities, investigations, and regulatory compliance in the implementation of the Federal Hazardous Material Law.

Within the USDOT, implementation of the HazMat law is coordinated through PHMSA and by inspectors trained and certified from each of the transportation modes (rail, water, highway, and air) within their area of expertise and familiarity. The modes work to achieve consistency, equity, and fairness in their enforcement activities with the goal of improved safety in the transportation of hazardous materials.

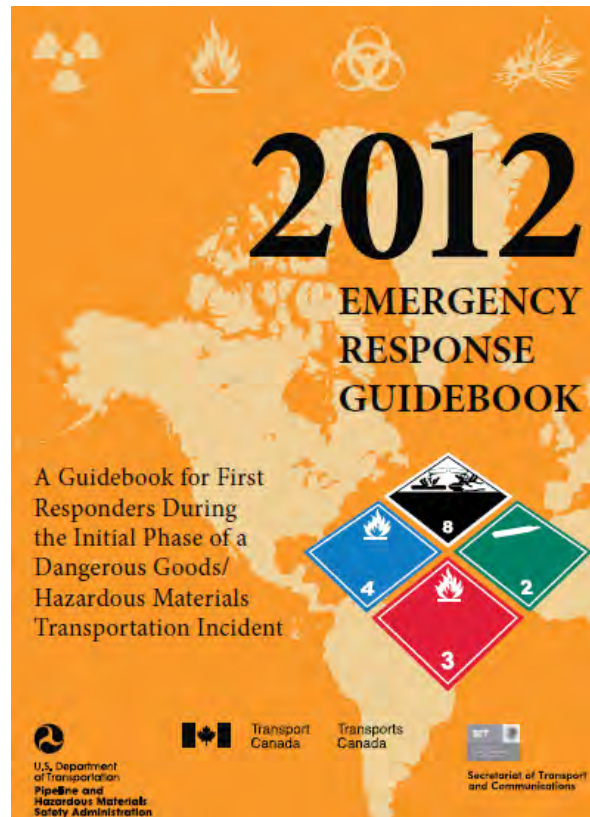
Any release of a hazardous material is required to be reported to the National Response Center (NRC) immediately or in lesser circumstances by written reports. The NRC is staffed by the United States Coast Guard (USCG) who are part of the Department of Homeland Security. The NRC generated reports are shared by all modes of transportation where upon notification investigations into the causes can be initiated.

SEA-3 and Pan Am Railways hazardous material compliance programs were directly overseen (2003-2013) by Sebago employee Mr. Fraini while employed by the USDOT Federal Railroad Administration as a Supervisory Railroad Safety Specialist of Hazardous Materials within FRA's Region 1. This oversight encompassed reviewing detailed field inspection reports, facility site inspections, training with both the rail carrier and the fixed SEA-3 facility, and, assisting in all HM rail compliance matters throughout the ten year period. This relationship with both rail carrier and shipper proves invaluable in our review of their compliance programs.

Meetings were conducted on August 18, 2015 with Pan Am Railway officials, and, on September 3, 2015, with SEA-3 officials. As a result of those meetings, it was determined that little had changed with their HazMat compliance programs, and they both appear to be in compliance with the USDOT Hazardous Materials Regulations.



## 3.2 Response to a Railroad Derailment



### ERG2012 USER'S GUIDE

The 2012 Emergency Response Guidebook (ERG2012) was developed jointly by Transport Canada (TC), the U.S. Department of Transportation (DOT), the Secretariat of Transport and Communications of Mexico (SCT) and with the collaboration of CIQUIME (Centro de Información Química para Emergencias) of Argentina, for use by fire fighters, police, and other emergency services personnel who may be the first to arrive at the scene of a transportation incident involving dangerous goods. **It is primarily a guide to aid first responders in quickly identifying the specific or generic hazards of the material(s) involved in the incident, and protecting themselves and the general public during the initial response phase of the incident.** For the purposes of this guidebook, the “initial response phase” is that period following arrival at the scene of an incident during which the presence and/or identification of dangerous goods is confirmed, protective actions and area securement are initiated, and assistance of qualified personnel is requested. It is not intended to provide information on the physical or chemical properties of dangerous goods.

This guidebook will assist responders in making initial decisions upon arriving at the scene of a dangerous goods incident. It should not be considered as a substitute for emergency response training, knowledge or sound judgment. ERG2012 does not address all possible circumstances that may be associated with a dangerous goods incident. **It is primarily designed for use at a dangerous goods incident occurring on a highway or railroad.** Be mindful that there may be limited value in its application at fixed facility locations.

In the event of a railroad derailment involving hazardous material tank cars, the initial response by first responders would be to first consult the United States Department of Transportation's Emergency Response Guide (ERG), which is specifically "designed for use at a dangerous goods incident occurring on a highway or railroad."

As an example, the initial responder (Fire Chief) would have to determine what the train's make-up was or in railroad terms what was in the train's "consist". The federal regulations require the train crew to be in possession of the train's manifest of hazardous materials, and, where those hazardous are located within their train.

Simultaneously, first responders would be evaluating the dangers to the public and determining whether an evacuation is warranted and any other immediate assistance that may be required. An important part of this process is in cooperation with the railroad who may be asked to move damaged cars out of harms way in order to present a safer environment in the mitigation process. Contact may be initiated with the shipper of the product who can offer specifics on what actions should be taken to safeguard the public and the first responders.

After examining the shipping papers, the fire chief would determine what the proper shipping name, UN ID number, and emergency telephone number for the shipper of the tank car are, and, consult the ERG.

In this example using the guide for LPG or ERG Guide 115, gives detailed information concerning the hazards, (fire vs large spill), public safety information, potential hazards, protective clothing, and, evacuation limits.

The fire chief would after initial response, determine if an Incident Command (IC) requires activation, (usually in large events), where many other experts are employed to assist the Incident Commander.

Once the immediate danger (fire or major leak) is contained, the railroad will commence the re-railing operation usually non-stop until the rail cars and track are restored.

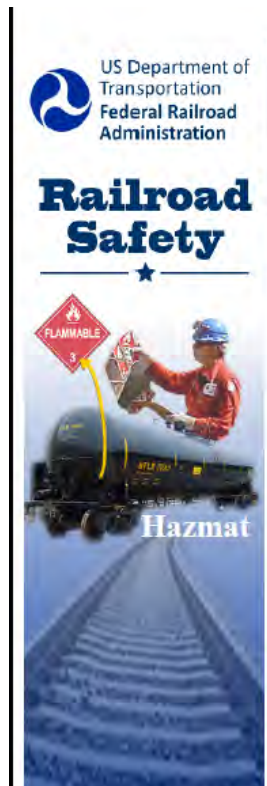
The railroad typically handles the derailment of cars loaded with hazardous materials in the following way. This procedure would be appropriate if the derailment were to occur on the Squamscot Trestle or in other areas where access by land adjacent to the railroad is not an option.

Tanks cars loaded with LPG are heavy and difficult to lift with on-track rerailling cranes. Typically, a railroad will remove all cars which did not derail and bring empty LPG cars to the site of the incident. Placing that car or cars as close as possible to the derailed car(s), piping and portable pumps will be used to transfer the LPG from the derailed equipment to the cars on track.

Once as much LPG as can be transferred from the derailed car(s) as possible has been accomplished, the derailed car(s) can be lifted using on-track cranes of up to 250 tons capacity.

In areas where ground conditions adjacent to the track allow use of crawler equipment, side boom equipped crawler tractors can be used to lift and move tank cars. Pan Am Railways has maintained such equipment at its East Deerfield, Massachusetts yard. There are also railroad response specialty companies located around the United State which are equipped to handle derailments of LPG cars.

### 3.3 Response to Non Accident Releases (NAR's)



## Definition of a NAR

“The unintentional release of a hazardous material while in transportation, including loading and unloading while in railroad possession, that is not caused by a derailment, collision or other rail related accident. NARs consist of leaks, splashes, and other releases from improperly secured or defective valves, fittings, and tank shells, and also include venting of non-atmospheric gases from safety relief devices.”

Atmospheric gases: air, nitrogen, oxygen, argon, krypton, neon, xenon

Non Accident Releases (NAR's) of hazardous materials while in rail transportation continue to be the largest source of hazardous material releases in the rail mode nationally. The Federal Railroad Administration closely monitors those reported releases through National Response Center (NRC) reports and reviewing all USDOT 5800.1 reports filed with the Pipeline and Hazardous Materials Safety Administration (PHMSA).

Between 1999(419) and 2013 (265), there was a 60% decline in NAR's primarily due to focused efforts by government regulators, railroads, and, industry combined.

In FRA Region 1, Mr. Fraini initiated a “zero tolerance” policy for his inspection force that required a thorough investigation of the cause of all non-accident releases, and, the submission of a violation report against the shipper for a failure to properly prepare the rail car before offering it into transportation if warranted and legally sufficient.

The zero tolerance policy was very successful in the reduction of NAR's within the region, and, statistically proved to improve transportation safety. FRA Region 1 has the lowest NAR rate in the nation which can be directly attributed to focused enforcement, quality field investigations, and, the violation process.

The first responder community, elected officials, rail carriers, and, the general public can enhance the safe movement of these rail tank cars by insisting that FRA investigate and prosecute all NAR's that happen while they are in transportation. FRA Region 1 has a toll free telephone number (800) RAIL 991 to report problems or make inquiries.

As LPG shipments increase on the Portsmouth and Newington industrial rail lines in New Hampshire, NAR's will most likely follow as the primary risk while in transportation. Pan Am Railways has emergency response contractors on-call listed on their web-site that respond to NAR's incidents.

Emergency Response Contractors	Office Phone #	Other Phone #
<b>Central &amp; East:</b> ENPRO	(800)-966-1102	(888) 795-1400
<b>West:</b> W.MASS ENV	(866)-662-2622	(413) 315-0657

The rail carrier also notifies the shipper via the emergency response telephone number listed on the shipping paper (bill of lading/waybill) required by 49 CFR 172.600. The emergency response telephone number on the shipping paper is one of the most valuable tools available to the first responders. The shipper possess the most knowledge and responsibility concerning the product and can offer the best ways in which to mitigate a release. In some cases they will travel to the scene to assist in mitigation efforts.

In the two NAR's involving LPG on Pan Am Railways lines in Deerfield, Massachusetts and Auburn, Maine, in 2008 and 2010 respectively, the primary cause was due to loose closures of valves that are required by federal regulation to be "tool tight" before transportation.

The Deerfield, Massachusetts incident reported that the release was discovered by a Federal Railroad Administration HazMat Inspector during a routine field visit. The response was mitigated by coordinating with the first responders and the shipper/consignee to stop the release.

#### PART VI - DESCRIPTION OF EVENTS & PACKAGE FAILURE

- Describe the sequence of events that led to the incident and the actions taken at the time it was discovered. Describe the package failure, including the size and location of holes, cracks, etc. Photographs and diagrams should be submitted if needed for clarification. Estimate the duration of the release, if possible. Describe what was done to mitigate the effects of the release. Continue on additional sheets if necessary.

##### Describe:

While doing a routine inspection in the East Deerfield Yard, an FRA Inspector found that tank car (AMOX 033763) was leaking vapors from the vapor valve and notified Pan Am Railways. Pan Am Railways responded by cordoning off the tank car to prevent possible ignition, contacted the Deerfield Fire Department and a technician from AmeriGas. The fire department as well as the Ameri Gas technician responded to the incident. The technician was able to tighten the valve and stop the leak.

**PART III - PACKAGING INFORMATION**

**24. Check Packaging Type (check only one - if more than one, list type of packaging, copy Part III, and complete for each type:**

Tank Car

**25. See instructions and enter the appropriate failure codes found at the end of the instructions. Be sure to enter the codes from the list that corresponds to the particular packaging type checked above. Enter the number of codes as appropriate to describe the incident.**

Enter the most important failure point in line 1. If there are more than two failure points, provide in this format in part VI.

What Failed: 158 - Vapor Valve  
 How Failed: 308 - Leaked  
 Causes of Failure: 526 - Loose Closure, Component, or Device

**26a. Provide the packaging identification markings, if available.**

Identification Markings: AMOX 033763, DOT112J340W

(Examples: 1A1/Y1.4/150/92/USA/RB/93/RL, UN31H1/Y0493/USA/M9339/10800/1200, DOT - 105A - 100W (RAIL), DOT 406 (HIGHWAY), DOT 51, DOT 3-A)

The Auburn, Maine incident reported that the HazMat response team from the local area mitigated the response by climbing onto the tank car, discovering the source of the leak, and, closing the valve. The release was discovered by a rail employee while inspecting his train, and, mitigated by the HazMat response team that were familiar with rail tank cars. This incident and the effective mitigation is directly a result of hands-on training with rail tank cars by responders.

**PART III - PACKAGING INFORMATION**

**24. Check Packaging Type (check only one - if more than one, list type of packaging, copy Part III, and complete for each type:**

Tank Car

**25. See instructions and enter the appropriate failure codes found at the end of the instructions. Be sure to enter the codes from the list that corresponds to the particular packaging type checked above. Enter the number of codes as appropriate to describe the incident.**

Enter the most important failure point in line 1. If there are more than two failure points, provide in this format in part VI.

What Failed: 127 - Inlet (Loading) Valve  
 How Failed: 308 - Leaked  
 Causes of Failure: 515 - Human Error

**26a. Provide the packaging identification markings, if available.**

Identification Markings: DOT112J340W

(Examples: 1A1/Y1.4/150/92/USA/RB/93/RL, UN31H1/Y0493/USA/M9339/10800/1200, DOT - 105A - 100W (RAIL), DOT 406 (HIGHWAY), DOT 51, DOT 3-A)

**PART VI - DESCRIPTION OF EVENTS & PACKAGE FAILURE**

- Describe the sequence of events that led to the incident and the actions taken at the time it was discovered. Describe the package failure, including the size and location of holes, cracks, etc. Photographs and diagrams should be submitted if needed for clarification. Estimate the duration of the release, if possible. Describe what was done to mitigate the effects of the release. Continue on additional sheets if necessary.

**Describe:**

In the process of walking and inspecting of the train the Conductor noticed a odor of gas and heard a hissing sound. The Conductor notified Pan Am Railways Operations and Local Emergency Responders were notified and arrived at the location. When the local hazmat team inspected the tank car they that a valve was not seated and were leaking vapor gas. The hazmat team tighten the valve and the leak was contained.



## Railroad Safety



## Incident Data

All Regions NARs  
(by incident location, US only, Oct. - Mar.)



## Railroad Safety



## NAR Inspections

- Regional Specialists receive reports of NARs that originated or occurred in their region.
- Regional Specialists communicate with other affected regions and prioritize and assign responsibility for investigation, as appropriate given resources and circumstances.
- Facilities with recurrent NARs may be subject to more frequent inspections.

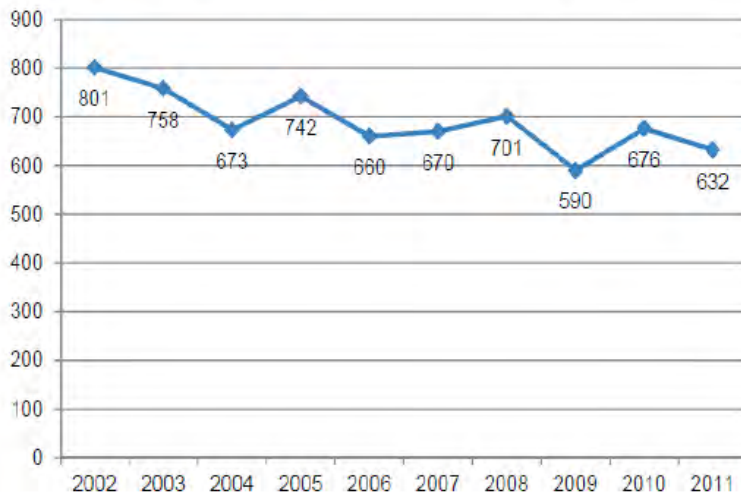


# Railroad Safety



# Historical Overview

Number of Tank Car Non-Accident Releases, U.S. and Canada: 2002-2011



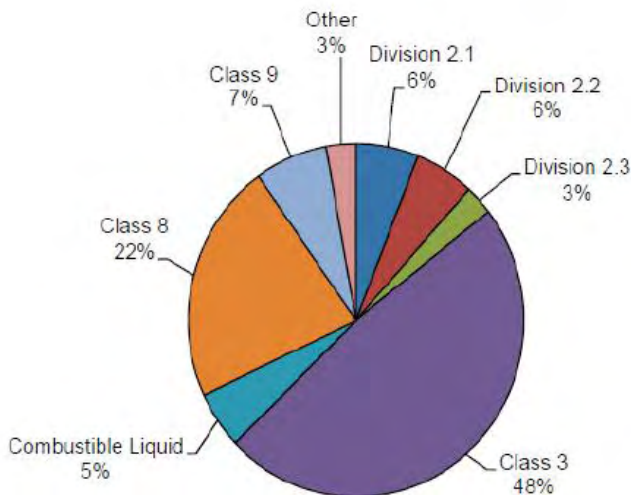


## Railroad Safety



# Hazard Class

Tank Car Non-Accident Releases by Hazard Class, U.S. and Canada: 2

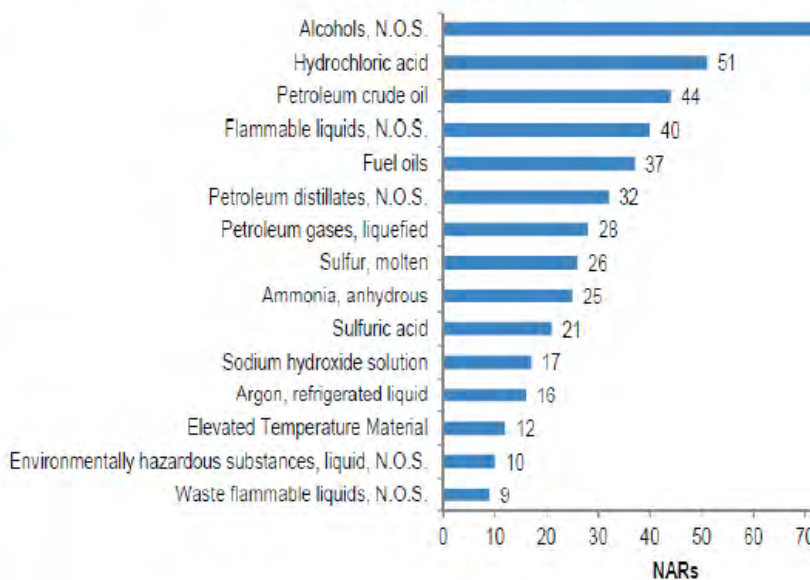


## Railroad Safety



# Commodity

Top 15 Commodities Involved in Tank Car Non-Accident Release: U.S. and Canada: 2011





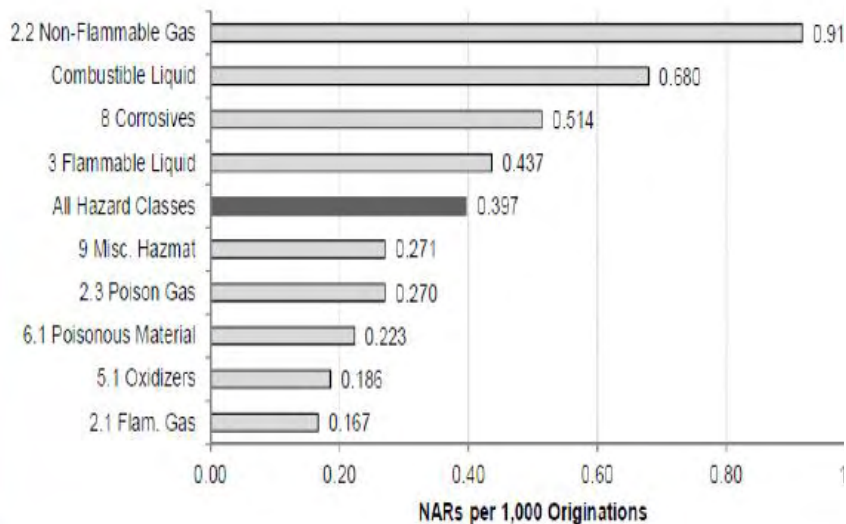


**Railroad  
Safety**



## NAR Rates By Hazard Class

Tank Car Non-Accident Releases per 1,000 Loaded Originations by Hazard Class  
U.S. and Canada: 2011



**U.S. Department of Transportation**  
**Pipeline and Hazardous Materials Safety Administration**  
**Office of Hazardous Material Safety**  
 Incident Detail Report  
 Total Incidents: 21

Incident Number	Date	Incident Street Address	City	State	Mode Of Transportation	Transportation Phase	Carrier
<a href="#">E-2015020352</a>	2/12/2015	705 N. Henry Ford Ave.	WILMINGTON	CA	FRA-RALWAY	IN TRANSIT	PACIFIC HARBOR LINE, INC.
<a href="#">I-2015010391</a>	1/9/2015	MP226	PADUCAH	KY	FRA-RAILWAY	IN TRANSIT STORAGE	PADUCAH & LOUISVILLE RAILWAY, INC.
<a href="#">X-2015010214</a>	1/3/2015	Unknown	Roseville	CA	FRA-RAILWAY	IN TRANSIT	UNION PACIFIC RAILROAD COMPANY INC
<a href="#">X-2015010221</a>	1/14/2015	Unknown	Bellevue	OH	FRA-RAILWAY	IN TRANSIT	NORFOLK SOUTHERN RAILWAY COMPANY

<a href="#">X-2015010224</a>	1/20/2015	Unknown	Lancaster	PA	FRA-RAILWAY	IN TRANSIT	NORFOLK SOUTHERN RAILWAY COMPANY
<a href="#">X-2015020054</a>	1/4/2015	Unknown	Roseville	CA	FRA-RAILWAY	IN TRANSIT	UNION PACIFIC RAILROAD COMPANY INC
<a href="#">X-2015020064</a>	2/3/2015	Unknown	Camden	NJ	FRA-RAILWAY	IN TRANSIT	CONSOLIDATED RAIL CORPORATION
<a href="#">X-2015020125</a>	1/21/2015	Unknown	Baytown	TX	FRA-RAILWAY	IN TRANSIT	UNION PACIFIC RAILROAD COMPANY INC
<a href="#">X-2015030102</a>	2/12/2015	Unknown	Lakeland	FL	FRA-RAILWAY	IN TRANSIT	CSX TRANSPORTATION, INC.
<a href="#">X-2015030108</a>	2/7/2015	Unknown	Bloomington	CA	FRA-RAILWAY	IN TRANSIT	UNION PACIFIC RAILROAD COMPANY INC
<a href="#">X-2015030109</a>	2/8/2015	Unknown	Roseville	CA	FRA-RAILWAY	IN TRANSIT	UNION PACIFIC RAILROAD COMPANY INC
<a href="#">X-2015030110</a>	2/8/2015	Unknown	Bloomington	CA	FRA-RAILWAY	IN TRANSIT	UNION PACIFIC RAILROAD COMPANY INC
<a href="#">X-2015030111</a>	2/10/2015	Unknown	Portland	OR	FRA-RAILWAY	IN TRANSIT	UNION PACIFIC RAILROAD COMPANY INC
<a href="#">X-2015030122</a>	2/10/2015	Unknown	Bloomington	CA	FRA-RAILWAY	IN TRANSIT	UNION PACIFIC RAILROAD COMPANY INC
<a href="#">X-2015030259</a>	3/22/2015	Unknown	Mingo Junction	OH	FRA-RAILWAY	IN TRANSIT	NORFOLK SOUTHERN RAILWAY COMPANY
<a href="#">X-2015030302</a>	2/20/2015	Mile Post 7.91, Navasota	SPRING	TX	FRA-RAILWAY	IN TRANSIT	UNION PACIFIC RAILROAD COMPANY INC
<a href="#">X-2015040068</a>	4/1/2015	Unknown	Walbridge	OH	FRA-RAILWAY	IN TRANSIT	CSX TRANSPORTATION, INC.
<a href="#">X-2015050049</a>	4/30/2015	Unknown	Lancaster	PA	FRA-RAILWAY	IN TRANSIT	NORFOLK SOUTHERN RAILWAY COMPANY
<a href="#">X-2015050075</a>	4/21/2015	Unknown	Memphis	TN	FRA-RAILWAY	IN TRANSIT	ILLINOIS CENTRAL RAILROAD COMPANY
<a href="#">X-2015060099</a>	5/22/2015	Unknown	Roseville	CA	FRA-RAILWAY	IN TRANSIT	UNION PACIFIC RAILROAD COMPANY INC
<a href="#">X-2015060101</a>	5/25/2015	Unknown	Pine Bluff	AR	FRA-RAILWAY	IN TRANSIT	UNION PACIFIC RAILROAD COMPANY INC

Source: Hazmat Intelligence Portal, U.S. Department of Transportation. Data as of 9/15/2015.

### 3.4 Examples of LPG Container Rail Cars

Appendix F contains examples of rail car types configured for the shipment of LPG.

### 3.5 Pan Am Railways LPG Distribution Network in New England

Pan Am Railways provided their “New England LPG Distribution Network” map which allows a pictorial overview of the number of LPG shippers/consignees in the Northeast. There currently are over thirty rail distribution points, including SEA-3, within Maine, New Hampshire, Vermont, and, Massachusetts. A copy of this map is included in Appendix E of this document. LPG rail traffic is expected to expand as markets change.

### 3.6 Government Database Research

The research into PHMSA’s HazMat Intelligence Portal (HIP) concerning hazmat incidents provided statistical data associated with all modes of transportation. There have been no rail LPG HazMat incidents in New Hampshire during the period 2010 – 2015. Nationally in 2015 there were twenty-one LPG incidents involving rail transportation with twenty of those classified as NAR’s, and, one as a result of a derailment.

Pan Am Railways reported two NAR’s involving LPG on their lines (Deerfield, MA in 2008 and Auburn, ME in 2010). Both reported incidents were the result of loose closures and poor shipment preparation by the shipper. There were no injuries as a result of those incidents. Copies of these incident reports are contained in Appendix G of this Report.

PHMSA ranks injuries from rail HM transportation in the following table with 62.50% attributed to Ammonia and Chlorine. No injuries in the transportation of LPG by rail.

**U.S. Department of Transportation  
Pipeline and Hazardous Materials Safety Administration  
Office of Hazardous Material Safety  
2015 FRA-RAILWAY Commodity Summary by All Injuries**

Rank	Commodity Name	Hazard Class	All Injuries	%
1	AQUA AMMONIA	CORROSIVE MATERIAL	3	37.50%
2	CHLORINE	POISONOUS GAS	2	25.00%
3	ALCOHOLS, N.O.S.	FLAMMABLE - COMBUSTIBLE LIQUID	1	12.50%
3	OTHER REGULATED SUBSTANCES, LIQUID, N.O.S.	MISCELLANEOUS HAZARDOUS MATERIAL	1	12.50%
3	PETROLEUM CRUDE OIL	FLAMMABLE - COMBUSTIBLE LIQUID	1	12.50%

In the following table of “Commodity Summary by Damages” LPG is ranked 10th or .07% of total damages.

**U.S. Department of Transportation**  
**Pipeline and Hazardous Materials Safety Administration**  
**Office of Hazardous Material Safety**  
 2015 FRA-RAILWAY Commodity Summary by Damages

Rank	Commodity Name	Hazard Class	Total Damages	%
1	PETROLEUM CRUDE OIL	FLAMMABLE - COMBUSTIBLE LIQUID	\$29,776,120	92.15%
2	SODIUM HYDROXIDE, SOLUTION	CORROSIVE MATERIAL	\$856,592	2.65%
3	HYDROCHLORIC ACID	CORROSIVE MATERIAL	\$853,119	2.64%
4	DICYCLOPENTADIENE	FLAMMABLE - COMBUSTIBLE LIQUID	\$139,976	0.43%
5	N,N-DIMETHYLFORMAMIDE	FLAMMABLE - COMBUSTIBLE LIQUID	\$126,000	0.39%
6	ALCOHOLS, N.O.S.	FLAMMABLE - COMBUSTIBLE LIQUID	\$53,334	0.17%
7	GASOLINE INCLUDES GASOLINE MIXED WITH ETHYL ALCOHOL, WITH NOT MORE THAN 10% ALCOHOL	FLAMMABLE - COMBUSTIBLE LIQUID	\$47,924	0.15%
8	DIESEL FUEL	FLAMMABLE - COMBUSTIBLE LIQUID	\$27,654	0.09%
9	PAINT INCLUDING PAINT, LACQUER, ENAMEL, STAIN, SHELLAC SOLUTIONS, VARNISH, POLISH, LIQUID FILLER AND LIQUID LACQUER BASE	FLAMMABLE - COMBUSTIBLE LIQUID	\$26,396	0.08%
10	PETROLEUM GASES, LIQUEFIED OR LIQUEFIED PETROLEUM GAS	FLAMMABLE GAS	\$22,880	0.07%
11	PROPYLENE	FLAMMABLE GAS	\$21,290	0.07%
12	AMMONIUM NITRATE, WITH NOT MORE THAN 0.2% OF COMBUSTIBLE MATERIALS, INCLUDING ANY ORGANIC SUBSTANCE CALCULATED AS CARBON TO THE EXCLUSION OF ANY OTHER ADDED SUBSTANCE	OXIDIZER	\$21,000	0.06%
13	ELEVATED TEMPERATURE LIQUID, N.O.S., AT OR ABOVE 100 C AND BELOW ITS FLASH POINT (INCLUDING MOLTEN METALS, MOLTEN SALTS, ETC.)	MISCELLANEOUS HAZARDOUS MATERIAL	\$20,450	0.06%
14	FLAMMABLE LIQUIDS, N.O.S.	FLAMMABLE - COMBUSTIBLE LIQUID	\$16,971	0.05%
15	N-PROPANOL OR PROPYL ALCOHOL, NORMAL	FLAMMABLE - COMBUSTIBLE LIQUID	\$16,070	0.05%
16	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.	CORROSIVE MATERIAL	\$14,885	0.05%
17	MONOETHANOLAMINE	CORROSIVE MATERIAL	\$14,600	0.05%
18	SULFURIC ACID WITH MORE THAN 51 PERCENT ACID	CORROSIVE MATERIAL	\$13,586	0.04%
19	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S.	MISCELLANEOUS HAZARDOUS MATERIAL	\$13,401	0.04%
20	PETROLEUM DISTILLATES, N.O.S. OR PETROLEUM PRODUCTS, N.O.S.	FLAMMABLE - COMBUSTIBLE LIQUID	\$13,390	0.04%
21	PHOSPHORIC ACID SOLUTION	CORROSIVE MATERIAL	\$11,808	0.04%
22	DISINFECTANTS, LIQUID, CORROSIVE N.O.S.	CORROSIVE MATERIAL	\$11,800	0.04%

23	OTHER REGULATED SUBSTANCES, LIQUID, N.O.S.	MISCELLANEOUS HAZARDOUS MATERIAL	\$11,500	0.04%
23	XYLENES	FLAMMABLE - COMBUSTIBLE LIQUID	\$11,500	0.04%
25	BUTADIENES, STABILIZED OR BUTADIENES AND HYDROCARBON MIXTURE, STABILIZED CONTAINING MORE THAN 40% BUTADIENES	FLAMMABLE GAS	\$10,300	0.03%
26	CORROSIVE LIQUIDS, N.O.S.	CORROSIVE MATERIAL	\$10,000	0.03%
26	METHYL ACRYLATE, STABILIZED	FLAMMABLE - COMBUSTIBLE LIQUID	\$10,000	0.03%
26	TOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S.	POISONOUS MATERIALS	\$10,000	0.03%
29	SULFUR, MOLTEN	MISCELLANEOUS HAZARDOUS MATERIAL	\$8,822	0.03%
30	ACETONE	FLAMMABLE - COMBUSTIBLE LIQUID	\$7,500	0.02%
30	PROPIIONALDEHYDE	FLAMMABLE - COMBUSTIBLE LIQUID	\$7,500	0.02%
32	CORROSIVE LIQUIDS, TOXIC, N.O.S.	CORROSIVE MATERIAL	\$7,380	0.02%
33	ARGON, REFRIGERATED LIQUID (CRYOGENIC LIQUID)	NONFLAMMABLE COMPRESSED GAS	\$7,192	0.02%
34	BISULFITES, AQUEOUS SOLUTIONS, N.O.S.	CORROSIVE MATERIAL	\$7,004	0.02%
35	HAZARDOUS WASTE, SOLID, N.O.S.	MISCELLANEOUS HAZARDOUS MATERIAL	\$5,900	0.02%
36	TOLUENE	FLAMMABLE - COMBUSTIBLE LIQUID	\$5,340	0.02%
37	CHLORINE	POISONOUS GAS	\$5,000	0.02%
37	ETHYL ACRYLATE, STABILIZED	FLAMMABLE - COMBUSTIBLE LIQUID	\$5,000	0.02%
37	METHYL METHACRYLATE MONOMER, STABILIZED	FLAMMABLE - COMBUSTIBLE LIQUID	\$5,000	0.02%
40	SULFUR, MOLTEN	FLAMMABLE SOLID	\$4,878	0.02%
41	FORMIC ACID WITH NOT LESS THAN 5% BUT LESS THAN 10% ACID BY MASS	CORROSIVE MATERIAL	\$4,580	0.01%
42	OXIDIZING LIQUID, CORROSIVE, N.O.S.	OXIDIZER	\$4,200	0.01%
43	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.	MISCELLANEOUS HAZARDOUS MATERIAL	\$4,056	0.01%
44	HYDROGEN PEROXIDE, STABILIZED OR HYDROGEN PEROXIDE AQUEOUS SOLUTIONS, STABILIZED WITH MORE THAN 60 PERCENT HYDROGEN PEROXIDE	OXIDIZER	\$3,500	0.01%
44	PHOSPHOROUS ACID	CORROSIVE MATERIAL	\$3,500	0.01%
44	RESIN SOLUTION, FLAMMABLE	FLAMMABLE - COMBUSTIBLE LIQUID	\$3,500	0.01%
47	PAINT RELATED MATERIAL INCLUDING PAINT THINNING, DRYING, REMOVING, OR REDUCING COMPOUND	FLAMMABLE - COMBUSTIBLE LIQUID	\$2,676	0.01%
48	FUEL, AVIATION, TURBINE ENGINE	FLAMMABLE - COMBUSTIBLE LIQUID	\$2,500	0.01%
48	ISOPRENE, STABILIZED	FLAMMABLE - COMBUSTIBLE LIQUID	\$2,500	0.01%
48	METHANOL	FLAMMABLE - COMBUSTIBLE LIQUID	\$2,500	0.01%

Source: Hazmat Intelligence Portal, U.S. Department of Transportation. Data as of 9/16/2015.

In the “Commodity Summary by Incidents” LPG is ranked 3rd or 7.49%.

**U.S. Department of Transportation**  
**Pipeline and Hazardous Materials Safety Administration**  
**Office of Hazardous Material Safety**  
 2015 FRA-RAILWAY Commodity Summary by Incidents

Rank	Commodity Name	Hazard Class	Incidents	%
1	PETROLEUM CRUDE OIL	FLAMMABLE - COMBUSTIBLE LIQUID	26	11.45%
2	ALCOHOLS, N.O.S.	FLAMMABLE - COMBUSTIBLE LIQUID	23	10.13%
3	PETROLEUM GASES, LIQUEFIED OR LIQUEFIED PETROLEUM GAS	FLAMMABLE GAS	17	7.49%
4	FLAMMABLE LIQUIDS, N.O.S.	FLAMMABLE - COMBUSTIBLE LIQUID	13	5.73%
5	HYDROCHLORIC ACID	CORROSIVE MATERIAL	11	4.85%
6	PETROLEUM DISTILLATES, N.O.S. OR PETROLEUM PRODUCTS, N.O.S.	FLAMMABLE - COMBUSTIBLE LIQUID	10	4.41%
7	ARGON, REFRIGERATED LIQUID (CRYOGENIC LIQUID)	NONFLAMMABLE COMPRESSED GAS	6	2.64%
7	GASOLINE INCLUDES GASOLINE MIXED WITH ETHYL ALCOHOL, WITH NOT MORE THAN 10% ALCOHOL	FLAMMABLE - COMBUSTIBLE LIQUID	6	2.64%
7	SULFUR, MOLTEN	MISCELLANEOUS HAZARDOUS MATERIAL	6	2.64%
10	PAINT INCLUDING PAINT, LACQUER, ENAMEL, STAIN, SHELLAC SOLUTIONS, VARNISH, POLISH, LIQUID FILLER AND LIQUID LACQUER BASE	FLAMMABLE - COMBUSTIBLE LIQUID	5	2.20%
10	SODIUM HYDROXIDE, SOLUTION	CORROSIVE MATERIAL	5	2.20%
10	SULFURIC ACID WITH MORE THAN 51 PERCENT ACID	CORROSIVE MATERIAL	5	2.20%
13	DIESEL FUEL	FLAMMABLE - COMBUSTIBLE LIQUID	4	1.76%
13	XYLENES	FLAMMABLE - COMBUSTIBLE LIQUID	4	1.76%
15	AMMONIUM NITRATE, WITH NOT MORE THAN 0.2% OF COMBUSTIBLE MATERIALS, INCLUDING ANY ORGANIC SUBSTANCE CALCULATED AS CARBON TO THE EXCLUSION OF ANY OTHER ADDED SUBSTANCE	OXIDIZER	3	1.32%
15	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.	CORROSIVE MATERIAL	3	1.32%
15	CORROSIVE LIQUIDS, N.O.S.	CORROSIVE MATERIAL	3	1.32%
15	CORROSIVE LIQUIDS, TOXIC, N.O.S.	CORROSIVE MATERIAL	3	1.32%
15	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S.	MISCELLANEOUS HAZARDOUS MATERIAL	3	1.32%
15	PHOSPHORIC ACID SOLUTION	CORROSIVE MATERIAL	3	1.32%
15	SULFUR, MOLTEN	FLAMMABLE SOLID	3	1.32%

Source: Hazmat Intelligence Portal, U.S. Department of Transportation. Data as of 8/31/2015.

**U.S. Department of Transportation**  
**Pipeline and Hazardous Materials Safety Administration**  
**Office of Hazardous Material Safety**  
 2015 FRA-RAILWAY Hazmat Summary by Hazardous Materials Class

<b>Hazard Division</b>	<b>Hazard Class</b>	<b>Incidents</b>	<b>Hospitalized</b>	<b>Non-Hospitalized</b>	<b>Fatalities</b>	<b>Damages</b>
3	FLAMMABLE - COMBUSTIBLE LIQUID	123	0	2	0	\$30,318,825
8	CORROSIVE MATERIAL	45	2	1	0	\$1,015,747
2.1	FLAMMABLE GAS	21	0	0	0	\$54,470
9	MISCELLANEOUS HAZARDOUS MATERIAL	15	0	1	0	\$64,129
2.2	NONFLAMMABLE COMPRESSED GAS	8	0	0	0	\$9,556
5.1	OXIDIZER	6	0	0	0	\$30,315
6.1	POISONOUS MATERIALS	4	0	0	0	\$12,854
4.1	FLAMMABLE SOLID	3	0	0	0	\$4,878
2.3	POISONOUS GAS	2	1	1	0	\$5,000
COMBUSTIBLE LIQUID	COMBUSTIBLE LIQUID	2	0	0	0	\$848

Source: Hazmat Intelligence Portal, U.S. Department of Transportation. Data as of 9/16/2015.

The 2015 summary data chart below depicting the cause of all HazMat releases in the rail transportation mode will document the causes for the release.

**U.S. Department of Transportation**  
**Pipeline and Hazardous Materials Safety Administration**  
**Office of Hazardous Material Safety**  
 2015 Hazmat Summary by Mode of Transportation / Cause

**Summary Report**

Cause	Incidents	Hospitalized	Non-Hospitalized	Fatalities	Damages
ABRASION	2	0	0	0	\$5,916
BROKEN COMPONENT OR DEVICE	7	0	0	0	\$17,284
CAUSE NOT REPORTED	1	0	0	0	\$0
CORROSION - EXTERIOR	1	0	0	0	\$2,500
CORROSION - INTERIOR	2	0	0	0	\$39,256
DEFECTIVE COMPONENT OR DEVICE	35	0	0	0	\$128,512
DERAILMENT	8	0	1	0	\$30,786,733
DETERIORATION OR AGING	25	2	1	0	\$77,749
FIRE, TEMPERATURE, OR HEAT	5	0	1	0	\$29,727,860
FORKLIFT ACCIDENT	1	0	0	0	\$6,500
HUMAN ERROR	15	1	1	0	\$54,898
IMPACT WITH SHARP OR PROTRUDING OBJECT (E.G., NAILS)	3	0	0	0	\$10,168
IMPROPER PREPARATION FOR TRANSPORTATION	10	1	0	0	\$31,557
INADEQUATE BLOCKING AND BRACING	1	0	0	0	\$5,300
INADEQUATE MAINTENANCE	2	0	0	0	\$5,500
INADEQUATE PREPARATION FOR TRANSPORTATION	19	0	0	0	\$46,479
INADEQUATE TRAINING	1	0	0	0	\$15,000
LOOSE CLOSURE, COMPONENT, OR DEVICE	81	0	2	0	\$154,853
MISALIGNED MATERIAL, COMPONENT, OR DEVICE	11	0	0	0	\$28,353
MISSING COMPONENT OR DEVICE	9	0	0	0	\$6,170
OVER-PRESSURIZED	5	0	0	0	\$829,271
OVERFILLED	10	0	0	0	\$64,414
STUB SILL SEPARATION FROM TANK (TANK CARS)	1	0	0	0	\$48,945
THREADS WORN OR CROSS THREADED	1	0	0	0	\$6,000
TOO MUCH WEIGHT ON PACKAGE	1	0	0	0	\$4,580
VALVE OPEN	25	0	0	0	\$38,817
VEHICULAR CRASH OR ACCIDENT DAMAGE	5	0	0	0	\$857,392



The 2014 summary data chart below depicting the cause of all HazMat releases in the rail transportation mode will document the causes for the release.

**U.S. Department of Transportation  
Pipeline and Hazardous Materials Safety Administration  
Office of Hazardous Material Safety  
2014 Hazmat Summary by Mode of Transportation / Cause**

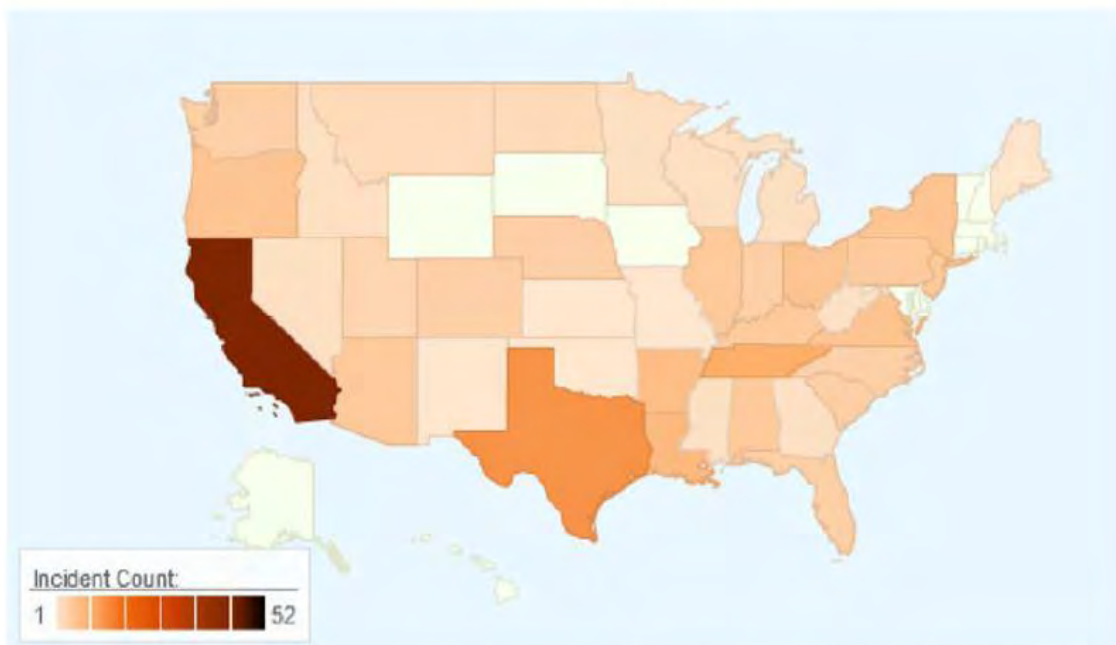
**Summary Report**

Cause	Incidents	Hospitalized	Non-Hospitalized	Fatalities	Damages
ABRASION	4	0	0	0	\$8,883
BROKEN COMPONENT OR DEVICE	22	0	0	0	\$104,906
CAUSE NOT REPORTED	15	0	0	0	\$29,112
CONVEYER OR MATERIAL HANDLING EQUIPMENT MISHAP	1	0	0	0	\$26,747
CORROSION - EXTERIOR	1	0	0	0	\$0
CORROSION - INTERIOR	1	0	0	0	\$8,500
DEFECTIVE COMPONENT OR DEVICE	117	0	2	0	\$306,317
DERAILMENT	13	0	0	0	\$19,927,653
DETERIORATION OR AGING	84	0	0	0	\$241,413
FIRE, TEMPERATURE, OR HEAT	2	0	0	0	\$5,000
FORKLIFT ACCIDENT	1	0	0	0	\$0
FREEZING	1	0	0	0	\$2,500
HUMAN ERROR	33	1	2	0	\$120,645
IMPACT WITH SHARP OR PROTRUDING OBJECT (E.G., NAILS)	9	0	0	0	\$29,284
IMPROPER PREPARATION FOR TRANSPORTATION	75	0	2	0	\$2,545,654
INADEQUATE BLOCKING AND BRACING	11	0	0	0	\$37,711
INADEQUATE MAINTENANCE	1	0	0	0	\$0
INADEQUATE PREPARATION FOR TRANSPORTATION	78	0	2	0	\$439,199
INCORRECTLY SIZED COMPONENT OR DEVICE	1	0	0	0	\$3,000
LOOSE CLOSURE, COMPONENT, OR DEVICE	237	0	1	0	\$616,166
MISALIGNED MATERIAL, COMPONENT, OR DEVICE	30	0	1	0	\$76,456
MISSING COMPONENT OR DEVICE	37	0	0	0	\$108,881
OVER-PRESSURIZED	24	0	3	0	\$297,513
OVERFILLED	12	0	0	0	\$67,448
ROLLOVER ACCIDENT	2	0	0	0	\$517,460
THREADS WORN OR CROSS THREADED	4	0	0	0	\$11,491
TOO MUCH WEIGHT ON PACKAGE	4	0	0	0	\$7,764
VALVE OPEN	71	0	0	0	\$271,757
VEHICULAR CRASH OR ACCIDENT DAMAGE	1	0	0	0	\$62,872
WATER DAMAGE	1	0	0	0	\$2,500

Rows 1 - 30 (All Rows)

## Incident Occurred Year 2015 Mode Of Transportation FRA-RAILWAY

**U.S. Department of Transportation  
Pipeline and Hazardous Materials Safety Administration  
Office of Hazardous Material Safety  
2015 FRA-RAILWAY Incident Map**



Source: Hazmat Intelligence Portal, U.S. Department of Transportation. Data as of 9/5/2015.

The NRC data base was researched for New Hampshire reported incidents from 2012 – 2015. It revealed no reports involving SEA-3 or Pan Am Railways. The 2014 & 2015 results are below.

DATE TIME COMPLETE	RESPONSIBLE COMPANY	CITY	STATE
1/12/2014 17:13	AGS SERVICES INC	HENNIKER	NH
1/13/2014 10:56	HOWE MOTORS INC.	CLAREMONT	NH
1/15/2014 14:00	ATLANTIC FUEL, INC.	RYE	NH
3/13/2014 16:04	UNITED STATES AIRFORCE	NEW BOSTON	NH
3/27/2014 10:09	PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE	PORTSMOUTH	NH
3/30/2014 18:33		GOSHEN	NH
4/15/2014 15:53	PUBLIC SERVICE OF NEW HAMPSHIRE	MANCHESTER	NH
4/15/2014 17:44	PUBLIC SERVICE OF NEW HAMPSHIRE	MANCHESTER	NH
4/28/2014 8:18	BROOKFIELD POWER	PORTSMOUTH	NH
5/7/2014 11:35	HOOKSETT WASTE TREATMENT PLANT		NH
5/8/2014 13:29	VALVALINE OIL CHANGE	HOOKSETT	NH
5/16/2014 13:29	SPRAGUE ENERGY	NEWINGTON	NH
5/17/2014 17:12	CARE ENVIRONMENTAL CORP		NH
5/27/2014 16:15	PUBLIC SERVICE OF NEW HAMPSHIRE	MANCHESTER	NH

5/28/2014 7:48	PUBLIC SERVICE OF NEW HAMPSHIRE	MANCHESTER	NH
6/2/2014 12:00		HUDSON	NH
6/12/2014 12:10	BROOKFIELD RENUABLE ENERGY	BERLIN	NH
6/23/2014 15:18		SEABROOK	NH
6/30/2014 13:47	PUBLIC SERVICE OF NH	MANCHESTER	NH
7/22/2014 10:26	PUBLIC SERVICE OF NEW HAMPSHIRE	NEWINGTON	NH
7/23/2014 15:07		PORTSMOUTH	NH
7/29/2014 9:24	NEW HAMPSHIRE ELECTRIC CO-OP	PLYMOUTH	NH
8/1/2014 16:56	M/V CELIA THAXTER- J&J CRUISE LINE ENTER	PORTSMOUTH	NH
8/27/2014 15:15		HUDSON	NH
9/5/2014 22:36		PEMBROOK	NH
9/9/2014 22:57	SPRAGUE	NEWINGTON	NH
9/19/2014 12:34	IRVING OIL TERMINALS INC	PORTSMOUTH	NH
10/10/2014 13:09	AUTO PLEX LLC	HUDSON	NH
10/27/2014 19:57	IRVING ENERGY	LEBANON	NH
10/28/2014 15:48	NEW HAMPSHIRE DOT		NH
11/5/2014 11:06	BROOKFIELD RENEWABLE ENERGY	BURLING	NH
11/5/2014 13:07	RICHMOND 4 CORNERS		NH
11/7/2014 23:39	IRVING ENERGY	WEST LEBANON	NH
11/28/2014 14:06	PUBLIC SERVICE OF NEW HAMPSHIRE		NH
12/9/2014 14:05	OLD. E. DUBE	MERRIMACK	NH
12/13/2014 11:27		ROCHESTER	NH
12/30/2014 13:01	NEW HAMPSHIRE DEMOLITION	AUBURN	NH
12/31/2014 10:56	PUBLIC SERVICE OF NEW HAMPSHIRE	MANCHESTER	NH

SEQNOS	DATE TIME RECEIVED	DATE TIME COMPLETE	RESPONSIBLE COMPANY	ORG TYPE	CITY	ZIP
1105530	1/13/15 9:48	1/13/15 9:51		PRIVATE CITIZEN	PEMBROKE, NH	03275
1106313	1/22/15 10:59	1/22/15 11:08	MINE FALLS HYDROELECTRIC	PRIVATE ENTERPRISE	NASHUA, NH	03062
1107376	2/4/15 21:19	2/4/15 21:30	PUBLIC SERVICE OF NEW HAMPSHIRE	PUBLIC UTILITY	MANCHESTER, NH	03105
1107821	2/10/15 17:42	2/10/15 17:46	PARK AND GO MARKET	PRIVATE ENTERPRISE	BRISTOL, NH	
1109524	3/3/15 14:00	3/3/15 14:04	SHAFT MASTER FISHING COMPANY	PRIVATE ENTERPRISE	NEWINGTON, NH	03801
1109815	3/6/15 13:35	3/6/15 13:48		PRIVATE CITIZEN	ROCHESTER, NH	
1110281	3/11/15 12:33	3/11/15 12:44		PRIVATE CITIZEN	MERIDEN, NH	
1111670	3/25/15 9:58	3/25/15 10:07	TOWN OF SALEM/UNNAME D CONTRACTOR	OTHER	SALEM, NH	

1113889	4/17/15 12:29	4/17/15 12:37	STURM RUEGER AND COMPANY INC.	PRIVATE ENTERPRISE	NEWPORT, NH	
1114294	4/21/15 16:59	4/21/15 17:04		PRIVATE CITIZEN	CHICHESTER, NH	
1114569	4/24/15 10:15	4/24/15 10:25		PRIVATE CITIZEN	SALEM, NH	
1114872	4/28/15 4:21	4/28/15 4:32	BURGER KING	PRIVATE ENTERPRISE	MILFORD, NH	
1115200	5/1/15 8:52	5/1/15 9:03		PRIVATE ENTERPRISE	COLEBROOK, NH	
1116040	5/10/15 11:14	5/10/15 11:24	TRANSFORMER SERVICE	PRIVATE ENTERPRISE	CONCORD, NH	
1117053	5/20/15 11:55	5/20/15 12:05	BLACKDOG DIVERS	PRIVATE ENTERPRISE	PORTSMOUTH , NH	03801
1117559	5/26/15 11:57	5/26/15 12:00		PRIVATE CITIZEN	MADISON, NH	
1117576	5/26/15 12:54	5/26/15 13:03	NOAA SHIP FERDINAND HASSLER	OTHER	NH	
1117838	5/28/15 12:47	5/28/15 12:54	TRIANGLE	PRIVATE ENTERPRISE	DERRY, NH	03038
1118220	6/1/15 8:37	6/1/15 8:45	PUBLIC SERVICE OF NEW HAMPSHIRE	STATE GOVERNMEN T	ROCHESTER, NH	
1118411	6/2/15 13:56	6/2/15 14:02	HHP INC	PRIVATE ENTERPRISE	HENNIKER, NH	
1119407	6/11/15 8:57	6/11/15 9:06		PRIVATE CITIZEN	NH	
1119527	6/12/15 11:04	6/12/15 11:14		PRIVATE CITIZEN	NH	

## Section 4 – Review of Highway Grade Crossings

### 4.1 Portsmouth Industrial Track & Newington Industrial Track

There are ten railroad grade crossings on the Portsmouth Industrial Track and sixteen on the Newington Industrial Track. Railroad grade crossings are identified as either “public” or “private” as required by the national inventory database maintained by the USDOT Federal Railroad Administration. Public highway-rail grade crossings are those where the public has a right of access and maintained by a public authority and the railroad carrier. Private highway-rail grade crossings are on roadways not open to use by the public nor maintained by a public authority.

The Federal Highway Administration states...“The highway agency having jurisdiction at the crossing is the only entity that can legally control traffic. Even though the railroads retain the responsibility for the installation and maintenance of crossbuck signs at “passive” crossings and for the design, construction, operation, and maintenance of railroad crossing signals, state transportation and regulatory agencies have the responsibility to assure that the standards set forth in MUTCD (Manual on Uniform Traffic Control Devices) and elsewhere in federal regulations are followed. The street or highway agency is also responsible for the installation and maintenance of all traffic control devices on the approaches to the crossing; for the design, construction, operation, and maintenance of highway traffic signals that may be interconnected with the grade crossing signals; and for the installation and maintenance of certain passive signs at the crossing, such as STOP signs or “Do Not Stop on Tracks” signs.

Although the railroads retain responsibility for the construction, reconstruction, and maintenance of the track structure and the riding surface at the highway-rail intersection, their obligation for the roadway usually ends within a few inches of the outside ends of the ties that support the rails and the crossing surface. The street or highway agency has responsibility for the design, construction, and maintenance of the roadway approaches to the crossing, even though these approaches may lie within the railroad's right of way.”

[http://safety.fhwa.dot.gov/xings/com\\_roaduser/07010/](http://safety.fhwa.dot.gov/xings/com_roaduser/07010/)

Highway-rail grade crossings are further distinguished by either being classified as “active” or “passive” in the types of warning signs or devices that are in place for a particular crossing.

- Active warning devices may consist of a combination of flashing lights, gates, bells, regulatory signs, warning signs, pavement markings and more.
- Passive traffic control devices may consist of regulatory signs, warning signs, guide signs, and supplemental pavement markings.

Federal law requires that, as a minimum, each state shall provide signs at all “public” crossings. The railroad crossbuck sign and other supplemental signs attached to the crossbuck mast are usually installed and maintained by the railroad company. The agency responsible for maintenance of the roadway is normally responsible for advance warning signs and pavement markings.

### Typical Crossing Signs



Source: Manual on Uniform Traffic Control Devices. Washington, DC: Federal Highway Administration.

According to the U.S. Department of Transportation National Highway-Rail Crossing Inventory, there were 97,306 private crossings in the United States in 2005. Usually, an agreement between the land owner and the railroad governs the use of the private crossing.

The number of collisions at private crossings represents a small portion of all crossing collisions. Very few private crossings have active traffic control devices and many do not have signs, nor are they required too. Typically, they are in industrial areas or on narrow gravel roads, often with poor roadway approaches.

In our review of the Portsmouth Industrial Branch and the Newington Industrial Branch crossings, the focus was upon the “public” crossings versus the “private” crossings in that in most cases these were not assessable to the general public. The two “private” crossing exceptions were Depot Road, Greenland and the NH Port Authority, Portsmouth. The remaining “public” highway-rail grade crossings on the Portsmouth Industrial Branch totaled nine; the Newington Industrial Branch had six.

#### 4.2 Highway-Rail Grade Crossings Collision Records 2005-2015

The Federal Railroad Administration (FRA) reported fourteen collisions in NH during the ten year period (2005-2015), with three injuries and no fatalities. Analysis of the accident reports revealed that motor vehicle driver inattention was the primary cause for these minor collisions. Ten of the collisions occurred at public crossings and three were at private crossings; two were listed in Rockingham County. Of the total collisions, one was categorized by FRA as “other” with one injury in Coos County.

**Table 1**  
**Highway-Rail Grade Crossing Collisions (2005-2015)**

NH County	Totals			At Public Crossing						At Private Crossing		
				Motor Vehicle			Other			Motor Vehicle		
	Cnt	Kld	Inj	Cnt	Kld	Inj	Cnt	Kld	Inj	Cnt	Kld	Inj
<b>CARROLL</b>	5	-	-	3	-	-	-	-	-	2	-	-
<b>COOS</b>	2	-	1	1	-	-	1	-	1	-	-	-
<b>GRAFTON</b>	1	-	-	1	-	-	-	-	-	-	-	-
<b>HILLSBOROUGH</b>	2	-	2	2	-	2	-	-	-	-	-	-
<b>ROCKINGHAM</b>	2	-	-	1	-	-	-	-	-	1	-	-
<b>STRAFFORD</b>	2	-	1	2	-	1	-	-	-	-	-	-
<b>Total</b>	14	-	4	10	-	3	1	-	1	3	-	-

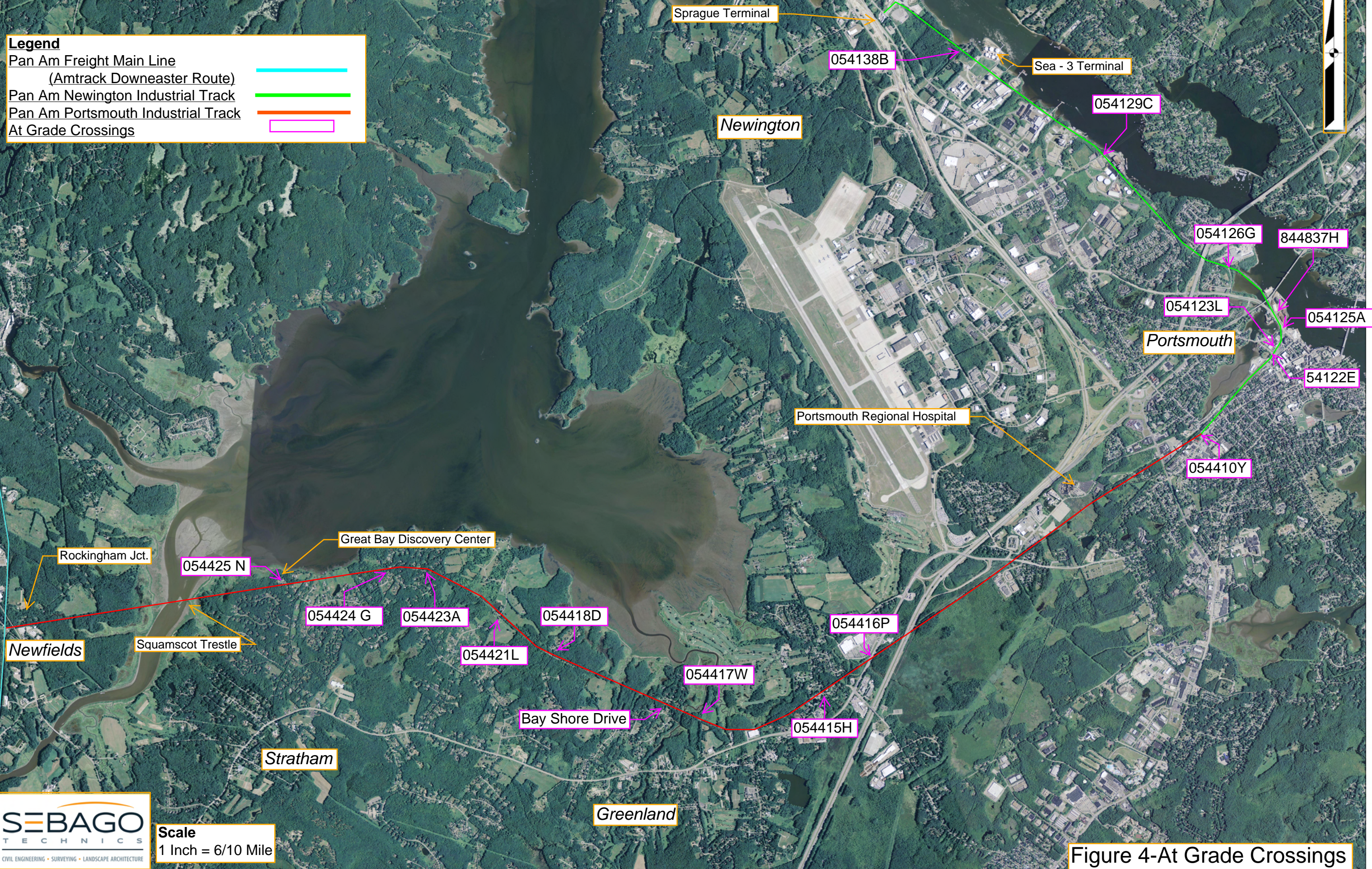
Cnt = count; Kld = killed; and Inj = injured

Figure 4 that follows depicts the public grade crossings on the Portsmouth Industrial Branch and the Newington Industrial Branch by USDOT crossing ID number.

Through our review of FRA information, we noted that the current FRA crossing inventory does not include Bay Shore Drive, Greenland, which is considered a “public” highway-rail grade

**Legend**

- Pan Am Freight Main Line (Amtrack Downeaster Route) —
- Pan Am Newington Industrial Track —
- Pan Am Portsmouth Industrial Track —
- At Grade Crossings



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**Scale**  
1 Inch = 6/10 Mile

**Figure 4-At Grade Crossings**



crossing. It is suggested that the FRA be notified about this, so that they may update their records.

Table 2 below presents FRA Web Based Accident Prediction (WBAPS) generated data that ranks the crossings from both a state and county configuration along with the total accident history that is available for those grade crossings over a thirty-five year period.

According to the FRA ...”WBAPS generates reports listing “public” highway-rail intersections for a State, County, City or railroad ranked by predicted collisions per year. WBAPS is a computer model which provides the user an analytical tool, which combined with other site-specific information, can assist in determining where scarce highway-rail grade crossing resources can best be directed. This computer model does not rank crossings in terms of most to least dangerous. Use of WBAPS data in this manner is incorrect and misleading.”

**Table 2**  
**FRA WBAPS Highway Crossing Data for Study Area**

USDOT ID	City/Town	Collisions	Injuries/Fatalities	WBAPS By State	WBAPS By County	Status
Maplewood Ave 054122E	Portsmouth	4	0	307	29	Active
Market Street 054125A	Portsmouth	2	0	294	28	Active
Depot Road 054425N	Greenland	0	0	Private	Private	Passive
Dearborn Road 054424G	Greenland	0	0	114	12	Passive
Bay Ridge Road 054423A	Greenland	0	0	96	10	Passive
Great Bay Road 054421L	Greenland	0	0	113	11	Passive
Bayside Road 054418D	Greenland	0	0	112	13	Passive
Bay Shore Drive	Greenland	0	0		Not in Inventory	Passive
Tide Mill Road 054417W	Greenland	0	0	227	21	Passive
Portsmouth Ave 054415H	Greenland	0	0	179	20	Active

Greenland Road 054416P	Greenland	0	0	7	1	Active
Barberry Lane 054410Y	Portsmouth	1	0	123	15	Passive
Green Street 054123L	Portsmouth	0	0	252	22	Passive
NH Port Auth 844837H	Portsmouth	0	0	Private	Private	None
Michael Succi 054126G	Portsmouth	0	0	268	23	Passive
Gossling Road 054129C	Portsmouth	0	0	274	26	Passive
Patterson Lane 054138B	Newington	0	0	271	25	Passive

See Appendix B for more detailed information on WBAPS data and crossing accident reports.

#### 4.3 Highway-Rail Grade Crossings Inventories and Photos



Maplewood Ave. – USDOT 054122E (no gates)



Market Street - USDOT 054125A (no gates)



Depot Road - USDOT 054425N



Dearborn Rd - USDOT 054424G



Bay Ridge Rd - USDOT 054423A



Great Bay Rd - USDOT 054421L



Bayside Rd - USDOT 054418D



Bay Shore Dr - USDOT (not in USDOT inventory)



Portsmouth Ave – USDOT 054415H (no gates)



Greenland Rd - USDOT 054416P (no gates)



Greenland Rd - USDOT 054416P (no gates)



Barberry Ln - USDOT 054410Y







Barberry Ln - USDOT 054410Y



Green St - USDOT054123L



Green St - USDOT054123L



NH Port - USDOT 844837H



NH Port - USDOT 844837H



Michael Succi - USDOT 054126G



Gossling Rd - USDOT 054129C



Gossling Rd - USDOT 054129C



Patterson Ln - USDOT 054138B



Patterson Ln - USDOT 054138B

See Appendix A for detailed grade crossing inspection reports.

#### 4.4 Highway-Rail Grade Crossing Recommendations

Specific areas needing attention:

- Great Bay Passive Warning Sign (bent) requires attention.
- Barberry Lane Advanced Warning Sign requires attention. Overgrown brush near signage.
- Green Street Passive Warning Sign (broken) requires attention.

General Considerations:

The public highway-rail grade crossings reviewed and located on the Portsmouth Industrial Branch and the Newington Industrial Branch lines are in compliance with Federal Highway regulations. As stated herein, the responsibility for determining the level of traffic control that is provided at each crossing lies with the state and local communities. As rail traffic increases on the Portsmouth Industrial and Newington Industrial lines, the potential exists for increased exposure to grade crossing motor vehicle collisions and trespasser incidents. There are two courses of action that can be considered to respond to this situation:

- 1) The state and municipalities can reexamine all of the crossings on these lines and decide if enhancements to the existing traffic control are warranted. For example, the installation of gates might be a consideration at the busier road crossings.
- 2) The local communities can work with the National "Operation Lifesaver" organization and its New Hampshire State partner to begin an active campaign involving local first responders (police/fire/EMS), local schools, school bus companies, commercial drivers, and, the public before new traffic increases. See the information below on both programs.

## Highway-Rail Grade Crossing and Trespass Prevention

The U.S. railroad system consists of over 750 railroads running on 140,000 miles of track. Every day trains travel across more than 212,000 highway-rail grade crossings.

A Grade Crossing is a location where a public highway, road, street, or private roadway, including associated sidewalks, and pathways, crosses railroad tracks at grade (same level as the street). There are over 38,000 locations where railroad tracks and roadways cross at different levels.

There have been about 270 deaths a year at public and private grade crossings. FRA, through the efforts of its Highway-Rail Crossing and Trespasser Prevention Division is committed to reducing that number. With the assistance of FRA's programs, the number of fatalities has gone down by 54 percent over the last two decades.

Trespassing along railroad rights-of-way is the leading cause of rail-related deaths in America. Nationally, more than 431 trespass fatalities occur each year, and nearly as many injuries, the vast majority of which are preventable.

The reality is that nearly every 180 minutes in America, someone is hit by a train. Combined, highway-rail crossing and trespasser deaths account for 95 percent of all rail-related deaths and most of these deaths are avoidable.



#### [Operation Lifesaver, Inc., Rail Safety Education](#)

#### **Rail Safety for Emergency Responders (RSER)**

Operation Lifesaver's classroom course, Rail Safety for Emergency Responders (RSER), is available nationally for training emergency response professionals including fire, EMS, emergency management agencies, military and homeland security personnel. The program teaches first responders the key safety elements involved when they work around dangers inherent in a railroad environment. Our RSER course provides emergency responders with information critical for railroad incident response including: Safe response; knowledge of railroad electrical, fuel and air systems; hazardous materials; identifying rolling stock; pinch points; stopping a train; high/low pressure tank cars, and other on-scene dangers.

Operation Lifesaver's close partnership with the law enforcement community throughout America has strengthened and improved public safety.

It's critical that when highway-rail intersection collisions do occur, law enforcement officers--often the first responders--are familiar with both railroad operations and highway-rail grade crossing conditions. Operation Lifesaver offers a special course teaching officers how to ensure their personal safety, both while responding to rail collision incidents and throughout the investigation.

If your community contains railroad tracks, your officers could be involved in a specialized highway-rail grade crossing collision investigation. Operation Lifesaver's Grade Crossing Collision Investigation (GCCl) course is designed to inform and prepare your department for that

eventuality. Our GCCI training was developed for the North American law enforcement community with cooperation from the International Association of Chiefs of Police.





## Section 5 – Review of Sea 3’s Risk Management Plan

### 5.1 EPA’s Risk Management Program

If a tank, drum, container, pipe, or other “process” at a facility contains any of the extremely hazardous toxic and flammable substances listed in the Code of Federal Regulations (CFR) at 40 CFR 68.130 in an amount above the “threshold quantity” specified for that substance, the facility is required to develop and implement a risk management program under a rule issued by the U.S. Environmental Protection Agency (EPA). The rule, “Chemical Accident Prevention Provisions” (Part 68 of Title 40 of the CFR), applies to a wide variety of facilities that handle, manufacture, store, or use toxic substances, including chlorine and ammonia and highly flammable substances such as propane (flammable substances used solely as fuel or sold by retailers are not covered).

The goal of Part 68 and the risk management program it requires is to prevent accidental releases of substances that can cause serious harm to the public and the environment from short-term exposures and to mitigate the severity of releases that do occur. Under the Clean Air Act (CAA), EPA was required to issue a rule specifying the types of actions to be taken by facilities (referred to in the law as stationary sources) to prevent accidental releases of such hazardous chemicals into the atmosphere and reduce their potential impact on the public and the environment. Part 68 is that rule.

In general, Part 68 requires the following:

- Covered facilities must develop and implement a risk management program and maintain documentation of the program at the site. The risk management program includes an analysis of the potential offsite consequences of a worst-case accidental release, a five-year accident history, a release prevention program, and emergency planning.
- Covered facilities must develop and submit a risk management plan (RMP) to EPA no later than June 21, 1999, or the date on which the facility first has more than a threshold quantity of a listed substance in a process, whichever is later. The RMP generally describes the facility’s risk management program. The RMP is available to federal, state, and local government agencies and the public, with some restrictions on the availability of the offsite consequence analysis sections of the RMP.
- Covered facilities must implement the risk management program and update their RMPs periodically or when certain process or other changes occur, as required by the rule.

The phrase "risk management program" refers to all of the requirements of Part 68, which must be implemented on an ongoing basis. The phrase "risk management plan (RMP)" refers to the document describing the risk management program that must be submitted to EPA.

The Sea 3 Terminal is subject to Part 68 of Title 40 of the CFR. The program level of the facility is 3. For a Level 3 Program, a facility must:

- Analyze both a worst-case release scenario and an alternative release scenario
- Implement a prevention program
- Implement an emergency response program if facility employees will respond to a release
- File an RMP

## 5.2 Sea 3's Risk Management Plan (RMP) Review

Sea-3's Terminal Risk Management Plan (RMP), required and approved by the U.S. Environmental Protection Agency (EPA) under Part 68 of Title 40 of the CFR, was reviewed in conjunction with a physical walk-through inspection conducted by SEA-3 officials on September 1, 2015. A copy of this document can be found in Appendix C of this Report. In addition, a copy of Sea 3's Process Hazard Analysis Report Update (2011), required by the Occupational Safety and Health Administration (OSHA), was reviewed and is included as Appendix D of this Report.

The SEA-3 officials and staff that conducted the site operational tour were professional, knowledgeable, and safety minded, given the responsibilities they have in ensuring the public's and employee well-being in hazardous material processes.

Upon entry to the facility strict security requirements are evident at the closed gate, including the USCG requirement that employees and drivers possess Transportation Worker Identification



Credential (TWIC) identification cards issued by the DHS along with background investigations. Visitors are required to sign-in and are issued a visitor ID badge to display while at the facility.

The twenty-four hour manned control room continually monitors all the processes occurring at the facility. The inspection validated many of the safeguards mentioned in the RMP, some of which are listed below.

Operating areas of the plant are monitored by combustible vapor detectors to quickly detect any leaks. Ultraviolet flame detectors monitor the plant to detect fires. The plant is attended by at least two operators 24/7. They log field operating data at two-hour intervals and monitor plant equipment using the following monitoring and control systems:

- The main control panel, located in the central control room, displays pressures, temperatures, valve positions, and flow rates and provides for remote operation and manual or automatic shutdown of valves and equipment.
- The emergency control panel, also located in the central control room, displays readings of combustible vapor detectors and fire detectors. It provides fire department notification and manual and automatic activation of water deluge and emergency shutdown systems. Back-up power is also provided as stated in RMP Section 7.4.E.12.
- A closed circuit television (CCTV) system, with displays located in the central control room, is used for surveillance and security of all portions of the terminal.
- "Sea-3 US Coast Guard Operating and Emergency Procedures Manual," covering operation of the marine transfer portion of the terminal as required by 33 CFR 127.
- "Sea-3 Contingency Plan," covering responses by facility employees, the Newington Fire and Police Departments, and the US Coast Guard. Its purpose is to minimize the effects of an incident at the terminal and to provide protection for persons and property in the area. It includes plans for sounding an alarm, initial response, determination of need for additional assistance, flammable vapor control, firefighting, evacuation of personnel and nearby residents, mutual aid support and propane industry group response.
- "Sea-3 Mooring Policy and Procedure Manual," covering the safe mooring of LPG carriers at the berth during cargo transfers.
- "Sea-3 Facility Security Plan," covering security as required by the US Department of Homeland Security.
- "Sea-3 Process Safety Management Manual," covering the elements of Process Safety Management, including employee participation, process safety information, process hazard analysis, operating procedures, training, contractor evaluation and training, truck driver (non-employee) evaluation and training, pre-startup safety reviews, equipment mechanical integrity, safe work permit system, management of change, incident investigation, and emergency preparedness.



Emergency planning and preparedness are covered in the "Sea-3 Contingency Plan," which details responses by facility employees, the Newington Fire and Police Departments, and the US

Coast Guard. These agencies were involved in the development of the plan, which is available to all cognizant officials in the pamphlet "Sea-3 Emergency Procedures." The sections involving facility employees were developed by Sea-3 management in conjunction with the operating staff and outside consultants. All new employees are given initial training in operating and emergency procedures. Employees receive refresher training on an ongoing basis. This training is documented in accordance with the training records requirements of OSHA's Process Safety Management program and EPA's Risk Management Program.

In addition to the Sea-3 Emergency Procedures noted above, emergency response is also covered in the "Sea- 3 US Coast Guard Operating and Emergency Procedures Manual." The US Coast Guard also maintains its own written operating and emergency plan, "Liquefied Petroleum Gas (LPG) Contingency Plan," issued by the USCG Marine Safety Office in Portland, Maine.

SEA-3 contracts with outside resources for an annual facility security plan audit and a process hazard analysis which was updated and revalidated in 2011.

## **5.2 Summary of Findings**

Based on our investigation, it appears that Sea 3 is complying with all current regulations under EPA's Risk Management Program.

## Section 6 – Meetings with Area Emergency Response Personnel

### 6.1 Local Meetings with First Responders

A meeting sponsored by the Newington Fire Chief for the area chiefs was held on September 1, 2015 at the Newington Town Hall. In attendance were Chiefs from Newington, Pease ANGB, the Dover Asst. Chief, and two Newington Town officials. The Chiefs from Portsmouth, Stratham, Greenland, and, Newfield were unable to attend. A second meeting was held with the Portsmouth Chief on September 8, 2015 and telephone interviews with the Chiefs of Stratham, Greenland and Newfield later that same day.

The general consensus was one of unity insofar as mutual aid was concerned along with the need to address equipment issues required to address an LPG tank car fire or release. There was also a comfort level with New Hampshire's HazMat Response Team generally. However, one chief remarked that he wasn't sure if the HazMat Team had looked at a rail car in the past ten-years.

A catastrophic event, e.g., major fire or explosion, would obviously cause major disruptions and evacuations, along with the employment of an Incident Command (IC) structure first led by the responding chief on scene, and, a one-mile evacuation, including closure of major highways. It was thought that it would take an hour or more to assemble and deploy HazMat teams to the scene of a major event at the SEA-3 facility or a rail tank car fire.

Most of the concerns appear to stem from a lack of specifics concerning the operation, capacity, and, emergency response plans of the SEA-3 facility and with rail tank car familiarity. Site visits along with coordinated training exercises were universally endorsed by the fire representatives.

Training costs were identified as a significant barrier to fulfilling training deficiencies when addressing LPG facility and rail tank car incidents. Discussed were the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration's (PHMSA) HMEP grants, which are designed to improve the nation's response to hazardous materials transportation incidents. Since 1993, more than 2.5 million emergency responders around the country have received training assistance using PHMSA grants. This year New Hampshire was awarded \$137,757 from these funds.

Local fire officials indicated that both SEA-3 and Pan Am Railways have in the past, and they expected would continue to in the future, offer their assistance to the first responder fire community in order to ensure safe communities in the transportation, storage, and, transloading of LPG.


LPG tank car training is available through several regional sources. The Massachusetts Fire Academy in association with the Propane Gas Association of New England; the Safety Train Organization located on CSX rail lines in West Springfield, MA., they bring their safety train to your location; and, the Transportation Technology Center Institute, Pueblo, Colorado.

<http://www.aar.com/>

[https://youtu.be/Z9Wz1Xp\\_Fk8](https://youtu.be/Z9Wz1Xp_Fk8)



<http://www.thesafetytrain.org>




SPECIAL THANKS TO THE  
*Massachusetts Fire  
Fighting Academy*  
for the use of their facility.

**PROPANE COUNCIL**  
PGANE Emergency Response Training is partially funded through a grant by PERC.

**PROPANE GAS ASSOCIATION OF NEW ENGLAND**  
P.O. Box 859,  
Moultonboro, NH 03254

For additional information call:  
603-544-2226  
[www.pgane.org](http://www.pgane.org)



# Emergency Response Training

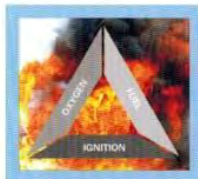
2011 Training Dates  
May 10-12 & September 13-15

PRESENTED BY

**PROPANE GAS ASSOCIATION OF NEW ENGLAND**

# PROPANE EMERGENCY RESPONSE TRAINING CURRICULUM OVERVIEW

Physical properties & characteristics of propane and the importance of remembering them during a propane emergency.



Methods to control propane liquid and vapor when released into the atmosphere.



- Propane container design and construction features including: DOT cylinders, ASME tanks, Bobtail, Transport, and Railcar Cargo Tanks.



- New England Emergency Response Plan and how it can be utilized when an incident occurs.



- Firefighting techniques utilized to mitigate leaking propane as well as fires involving propane.

- Proper use of specialized tools and equipment when responding to a propane incident.



- Proper use of a CGI when responding to an incident.

- Discussion on "BLEVE's" and how to prevent or from occurring, and the devastating results when one does occur.



- Videos and DVDs as well as props are utilized as visual aids.



- Hands-on experience dealing with simulated propane emergencies while dressed in full turnout gear.





## APPENDICES

Appendix A – Highway-Rail Grade Crossing Inventory Reports	A1 - A43
Appendix B – WBAPS Data Files and Crossing Inventory Reports	B1 – B11
Appendix C – Sea 3’s Risk Management Plan	C1 – C12
Appendix D – Process Hazard Analysis Report for Sea 3	D1 – D21
Appendix E – Pan Am Railways New England LPG Distribution Network Map	E1 – E1
Appendix F – LPG Rail Car Types	F1 – F7
Appendix G – Pan Am LPG Incident Reports 2008 and 2010	G1 – G10
Appendix H – Pan Am Outreach Training Classes 2013-2015	H1 – H5
Appendix I – Sebago Staff Resumes	

# U. S. DOT CROSSING INVENTORY FORM

A-1

**DEPARTMENT OF TRANSPORTATION**  
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk \* denotes an optional field.

<b>A. Revision Date</b> (MM/DD/YYYY) 09 / 15 / 2010	<b>B. Reporting Agency</b> <input type="checkbox"/> Railroad <input type="checkbox"/> Transit <input checked="" type="checkbox"/> State <input type="checkbox"/> Other	<b>C. Reason for Update (Select only one)</b> <input checked="" type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction	<b>D. DOT Crossing Inventory Number</b> 054118P
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## Part I: Location and Classification Information

<b>1. Primary Operating Railroad</b> Boston & Maine Corporation [BM]		<b>2. State</b> NEW HAMPSHIRE		<b>3. County</b> ROCKINGHAM	
<b>4. City / Municipality</b> <input checked="" type="checkbox"/> In <input type="checkbox"/> Near PORTSMOUTH		<b>5. Street/Road Name &amp; Block Number</b> BARBERRY LN (Street/Road Name)   * (Block Number)		<b>6. Highway Type &amp; No.</b> LS-258	
<b>7. Do Other Railroads Operate a Separate Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR _____			<b>8. Do Other Railroads Operate Over Your Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR _____		
<b>9. Railroad Division or Region</b> <input type="checkbox"/> None BOSTON & MAINE		<b>10. Railroad Subdivision or District</b> <input type="checkbox"/> None VS 3 MAP 54		<b>11. Branch or Line Name</b> <input type="checkbox"/> None HAMPTON BR	
<b>12. RR Milepost</b> _____   0000.20   _____ (prefix)   (nnnn.nnn)   (suffix)		<b>13. Line Segment</b> * 225		<b>14. Nearest RR Timetable Station</b> * PORTSMOUTH	
<b>15. Parent RR (if applicable)</b> <input type="checkbox"/> N/A		<b>16. Crossing Owner (if applicable)</b> <input type="checkbox"/> N/A		<b>17. Crossing Type</b> <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	
<b>18. Crossing Purpose</b> <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.		<b>19. Crossing Position</b> <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over		<b>20. Public Access (if Private Crossing)</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>21. Type of Train</b> <input type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter		<input type="checkbox"/> Transit <input type="checkbox"/> Shared Use Transit <input checked="" type="checkbox"/> Tourist/Other		<b>22. Average Passenger Train Count Per Day</b> <input type="checkbox"/> Less Than One Per Day <input checked="" type="checkbox"/> Number Per Day 8	
<b>23. Type of Land Use</b> <input type="checkbox"/> Open Space <input type="checkbox"/> Farm <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard					
<b>24. Is there an Adjacent Crossing with a Separate Number?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Provide Crossing Number _____			<b>25. Quiet Zone (FRA provided)</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established _____		
<b>26. HSR Corridor ID</b> <input type="checkbox"/> N/A		<b>27. Latitude in decimal degrees</b> (WGS84 std: nn.nnnnnnn) 43.0655936		<b>28. Longitude in decimal degrees</b> (WGS84 std: -nnn.nnnnnnn) -70.7785889	
<b>29. Lat/Long Source</b> <input checked="" type="checkbox"/> Actual <input type="checkbox"/> Estimated					
<b>30.A. Railroad Use *</b>			<b>31.A. State Use *</b> AADT ESTIMATED		
<b>30.B. Railroad Use *</b>			<b>31.B. State Use *</b>		
<b>30.C. Railroad Use *</b>			<b>31.C. State Use *</b>		
<b>30.D. Railroad Use *</b>			<b>31.D. State Use *</b>		
<b>32.A. Narrative (Railroad Use) *</b> VERIFIED			<b>32.B. Narrative (State Use) *</b> VERIFIED		
<b>33. Emergency Notification Telephone No. (posted)</b>		<b>34. Railroad Contact (Telephone No.)</b>		<b>35. State Contact (Telephone No.)</b> 603-271-2468	

## Part II: Railroad Information

<b>1. Estimated Number of Daily Train Movements</b>				
<b>1.A. Total Day Thru Trains (6 AM to 6 PM)</b> 0	<b>1.B. Total Night Thru Trains (6 PM to 6 AM)</b> 0	<b>1.C. Total Switching Trains</b> 0	<b>1.D. Total Transit Trains</b>	<b>1.E. Check if Less Than One Movement Per Day</b> <input type="checkbox"/> How many trains per week? _____
<b>2. Year of Train Count Data (YYYY)</b>		<b>3. Speed of Train at Crossing</b> 3.A. Maximum Timetable Speed (mph) 15 3.B. Typical Speed Range Over Crossing (mph) From 5 to 15		
<b>4. Type and Count of Tracks</b> Main 1 Siding _____ Yard _____ Transit _____ Industry _____				
<b>5. Train Detection (Main Track only)</b> <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input checked="" type="checkbox"/> DC <input type="checkbox"/> Other <input type="checkbox"/> None				
<b>6. Is Track Signaled?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>7.A. Event Recorder</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>7.B. Remote Health Monitoring</b> <input type="checkbox"/> Yes <input type="checkbox"/> No

# U. S. DOT CROSSING INVENTORY FORM

A-2

A. Revision Date (MM/DD/YYYY) 09/15/2010		PAGE 2		D. Crossing Inventory Number (7 char.) 054118P	
<b>Part III: Highway or Pathway Traffic Control Device Information</b>					
1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 2		2.B. STOP Signs (R1-1) (count) 1	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input checked="" type="checkbox"/> W10-1 _____ <input type="checkbox"/> W10-3 _____ <input type="checkbox"/> W10-11 _____ <input type="checkbox"/> W10-2 _____ <input type="checkbox"/> W10-4 _____ <input type="checkbox"/> W10-12 _____	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count _____) <input checked="" type="checkbox"/> No		2.F. Pavement Markings <input type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input checked="" type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None	2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No
2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2.J. Other MUTCD Signs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No	2.L. LED Enhanced Signs (List types)
<b>3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)</b>					
3.A. Gate Arms (count) Roadway <u>0</u> Pedestrian _____	3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates <input type="checkbox"/> 4 Quad	3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane <u>0</u> <input type="checkbox"/> Incandescent Not Over Traffic Lane <u>0</u> <input type="checkbox"/> LED		3.D. Mast Mounted Flashing Lights (count of masts) <u>2</u> <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included	3.E. Total Count of Flashing Light Pairs 4
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) ____/____/____ <input type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/____ <input type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3.I. Bells (count) 1
3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None				3.K. Other Flashing Lights or Warning Devices Count <u>0</u> Specify type _____	
4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs	4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____	6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None	
<b>Part IV: Physical Characteristics</b>					
1. Traffic Lanes Crossing Railroad <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic Number of Lanes <u>2</u> <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/____ Width * _____ Length * _____ <input type="checkbox"/> 1 Timber <input checked="" type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Approximate Distance (feet) _____			7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input checked="" type="checkbox"/> 60° - 90°	8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Part V: Public Highway Information</b>					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input checked="" type="checkbox"/> (08) Non-Federal AID		2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input checked="" type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input checked="" type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Highway Speed Limit <u>30</u> _____ MPH <input checked="" type="checkbox"/> Posted <input type="checkbox"/> Statutory
5. Linear Referencing System (LRS Route ID) *					
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year <u>2009</u> AADT <u>000560</u>		8. Estimated Percent Trucks <u>00</u> _____ %	9. Regularly Used by School Buses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Average Number per Day <u>0</u>		10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Submission Information - This information is used for administrative purposes and is not available on the public website.</b>					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					

# U. S. DOT CROSSING INVENTORY FORM

A-3

**DEPARTMENT OF TRANSPORTATION**  
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk \* denotes an optional field.

<b>A. Revision Date</b> (MM/DD/YYYY) 09 / 15 / 2010	<b>B. Reporting Agency</b> <input type="checkbox"/> Railroad <input type="checkbox"/> Transit <input checked="" type="checkbox"/> State <input type="checkbox"/> Other	<b>C. Reason for Update (Select only one)</b> <input checked="" type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction	<b>D. DOT Crossing Inventory Number</b> 054118P
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## Part I: Location and Classification Information

<b>1. Primary Operating Railroad</b> Boston & Maine Corporation [BM]		<b>2. State</b> NEW HAMPSHIRE		<b>3. County</b> ROCKINGHAM	
<b>4. City / Municipality</b> <input checked="" type="checkbox"/> In <input type="checkbox"/> Near PORTSMOUTH		<b>5. Street/Road Name &amp; Block Number</b> BARBERRY LN (Street/Road Name)   * (Block Number)		<b>6. Highway Type &amp; No.</b> LS-258	
<b>7. Do Other Railroads Operate a Separate Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR			<b>8. Do Other Railroads Operate Over Your Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR		
<b>9. Railroad Division or Region</b> <input type="checkbox"/> None BOSTON & MAINE		<b>10. Railroad Subdivision or District</b> <input type="checkbox"/> None VS 3 MAP 54		<b>11. Branch or Line Name</b> <input type="checkbox"/> None HAMPTON BR	
<b>12. RR Milepost</b> 0000.20 (prefix)   (nnnn.nnn)   (suffix)		<b>13. Line Segment</b> * 225		<b>14. Nearest RR Timetable Station</b> * PORTSMOUTH	
<b>15. Parent RR (if applicable)</b> <input type="checkbox"/> N/A		<b>16. Crossing Owner (if applicable)</b> <input type="checkbox"/> N/A		<b>17. Crossing Type</b> <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	
<b>18. Crossing Purpose</b> <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.		<b>19. Crossing Position</b> <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over		<b>20. Public Access (if Private Crossing)</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>21. Type of Train</b> <input type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter		<b>22. Average Passenger Train Count Per Day</b> <input type="checkbox"/> Less Than One Per Day <input checked="" type="checkbox"/> Number Per Day 8		<b>23. Type of Land Use</b> <input type="checkbox"/> Open Space <input type="checkbox"/> Farm <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard	
<b>24. Is there an Adjacent Crossing with a Separate Number?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Provide Crossing Number			<b>25. Quiet Zone (FRA provided)</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established		
<b>26. HSR Corridor ID</b> <input type="checkbox"/> N/A		<b>27. Latitude in decimal degrees</b> (WGS84 std: nn.nnnnnnn) 43.0655936		<b>28. Longitude in decimal degrees</b> (WGS84 std: -nnn.nnnnnnn) -70.7785889	
<b>29. Lat/Long Source</b> <input checked="" type="checkbox"/> Actual <input type="checkbox"/> Estimated		<b>30.A. Railroad Use *</b>		<b>31.A. State Use *</b> AADT ESTIMATED	
<b>30.B. Railroad Use *</b>		<b>30.C. Railroad Use *</b>		<b>30.D. Railroad Use *</b>	
<b>31.B. State Use *</b>		<b>31.C. State Use *</b>		<b>31.D. State Use *</b>	
<b>32.A. Narrative (Railroad Use) *</b> VERIFIED			<b>32.B. Narrative (State Use) *</b> VERIFIED		
<b>33. Emergency Notification Telephone No. (posted)</b>		<b>34. Railroad Contact (Telephone No.)</b>		<b>35. State Contact (Telephone No.)</b> 603-271-2468	

## Part II: Railroad Information

<b>1. Estimated Number of Daily Train Movements</b>				
<b>1.A. Total Day Thru Trains (6 AM to 6 PM)</b> 0	<b>1.B. Total Night Thru Trains (6 PM to 6 AM)</b> 0	<b>1.C. Total Switching Trains</b> 0	<b>1.D. Total Transit Trains</b>	<b>1.E. Check if Less Than One Movement Per Day</b> <input type="checkbox"/> How many trains per week? _____
<b>2. Year of Train Count Data (YYYY)</b>		<b>3. Speed of Train at Crossing</b> 3.A. Maximum Timetable Speed (mph) 15 3.B. Typical Speed Range Over Crossing (mph) From 5 to 15		
<b>4. Type and Count of Tracks</b> Main 1 Siding _____ Yard _____ Transit _____ Industry _____				
<b>5. Train Detection (Main Track only)</b> <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input checked="" type="checkbox"/> DC <input type="checkbox"/> Other <input type="checkbox"/> None				
<b>6. Is Track Signaled?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>7.A. Event Recorder</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>7.B. Remote Health Monitoring</b> <input type="checkbox"/> Yes <input type="checkbox"/> No

# U. S. DOT CROSSING INVENTORY FORM

A-4

A. Revision Date (MM/DD/YYYY) 09/15/2010		PAGE 2		D. Crossing Inventory Number (7 char.) 054118P	
Part III: Highway or Pathway Traffic Control Device Information					
1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 2		2.B. STOP Signs (R1-1) (count) 1	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input checked="" type="checkbox"/> W10-1 _____ <input type="checkbox"/> W10-3 _____ <input type="checkbox"/> W10-11 _____ <input type="checkbox"/> W10-2 _____ <input type="checkbox"/> W10-4 _____ <input type="checkbox"/> W10-12 _____	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count _____) <input checked="" type="checkbox"/> No	2.F. Pavement Markings <input type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input checked="" type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None	2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No	2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.J. Other MUTCD Signs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No		2.L. LED Enhanced Signs (List types)	
3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)					
3.A. Gate Arms (count) Roadway <u>0</u> Pedestrian _____	3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates <input type="checkbox"/> 4 Quad	3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane <u>0</u> <input type="checkbox"/> Incandescent Not Over Traffic Lane <u>0</u> <input type="checkbox"/> LED		3.D. Mast Mounted Flashing Lights (count of masts) <u>2</u> <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included	3.E. Total Count of Flashing Light Pairs  4
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) _____/_____/_____ <input type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/_____ <input type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3.I. Bells (count)  1
3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None				3.K. Other Flashing Lights or Warning Devices Count <u>0</u> Specify type _____	
4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs	4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____	6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None	
Part IV: Physical Characteristics					
1. Traffic Lanes Crossing Railroad <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic Number of Lanes <u>2</u> <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/_____ <input type="checkbox"/> 1 Timber <input checked="" type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Approximate Distance (feet) _____			7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input checked="" type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Part V: Public Highway Information					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input checked="" type="checkbox"/> (08) Non-Federal AID		2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input checked="" type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input checked="" type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Highway Speed Limit <u>30</u> MPH <input checked="" type="checkbox"/> Posted <input type="checkbox"/> Statutory
5. Linear Referencing System (LRS Route ID) *					
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year <u>2009</u> AADT <u>000560</u>		8. Estimated Percent Trucks <u>00</u> %	9. Regularly Used by School Buses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Average Number per Day <u>0</u>		10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No
Submission Information - This information is used for administrative purposes and is not available on the public website.					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					

# U. S. DOT CROSSING INVENTORY FORM

A-5

**DEPARTMENT OF TRANSPORTATION**  
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk \* denotes an optional field.

<b>A. Revision Date</b> (MM/DD/YYYY) 09 / 15 / 2010	<b>B. Reporting Agency</b> <input type="checkbox"/> Railroad <input type="checkbox"/> Transit <input checked="" type="checkbox"/> State <input type="checkbox"/> Other	<b>C. Reason for Update (Select only one)</b> <input checked="" type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction	<b>D. DOT Crossing Inventory Number</b> 054122E
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## Part I: Location and Classification Information

<b>1. Primary Operating Railroad</b> Boston & Maine Corporation [BM]		<b>2. State</b> NEW HAMPSHIRE		<b>3. County</b> ROCKINGHAM	
<b>4. City / Municipality</b> <input checked="" type="checkbox"/> In <input type="checkbox"/> Near PORTSMOUTH		<b>5. Street/Road Name &amp; Block Number</b> MAPLEWOOD AV <small>(Street/Road Name)   * (Block Number)</small>		<b>6. Highway Type &amp; No.</b> LS-368	
<b>7. Do Other Railroads Operate a Separate Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <small>If Yes, Specify RR</small>			<b>8. Do Other Railroads Operate Over Your Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <small>If Yes, Specify RR</small>		
<b>9. Railroad Division or Region</b> <input type="checkbox"/> None BOSTON & MAINE		<b>10. Railroad Subdivision or District</b> <input type="checkbox"/> None VS 3 MAP 55		<b>11. Branch or Line Name</b> <input type="checkbox"/> None PORTS YARD LEAD	
<b>12. RR Milepost</b> 0009.90 <small>(prefix)   (nnnn.nnn)   (suffix)</small>		<b>13. Line Segment</b> * 230		<b>14. Nearest RR Timetable Station</b> * PORTSMOUTH	
<b>15. Parent RR (if applicable)</b> <input type="checkbox"/> N/A		<b>16. Crossing Owner (if applicable)</b> <input type="checkbox"/> N/A		<b>17. Crossing Type</b> <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	
<b>18. Crossing Purpose</b> <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.		<b>19. Crossing Position</b> <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over		<b>20. Public Access (if Private Crossing)</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>21. Type of Train</b> <input type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter		<input type="checkbox"/> Transit <input type="checkbox"/> Shared Use Transit <input checked="" type="checkbox"/> Tourist/Other		<b>22. Average Passenger Train Count Per Day</b> <input type="checkbox"/> Less Than One Per Day <input checked="" type="checkbox"/> Number Per Day 8	
<b>23. Type of Land Use</b> <input type="checkbox"/> Open Space <input type="checkbox"/> Farm <input type="checkbox"/> Residential <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard					
<b>24. Is there an Adjacent Crossing with a Separate Number?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <small>If Yes, Provide Crossing Number</small>			<b>25. Quiet Zone (FRA provided)</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused <small>Date Established</small>		
<b>26. HSR Corridor ID</b> <input type="checkbox"/> N/A		<b>27. Latitude in decimal degrees</b> <small>(WGS84 std: nn.nnnnnnn)</small> 43.0782295		<b>28. Longitude in decimal degrees</b> <small>(WGS84 std: -nnn.nnnnnnn)</small> -70.7622117	
<b>29. Lat/Long Source</b> <input checked="" type="checkbox"/> Actual <input type="checkbox"/> Estimated		<b>30.A. Railroad Use *</b>			
<b>30.B. Railroad Use *</b>		<b>31.A. State Use *</b>			
<b>30.C. Railroad Use *</b>		<b>31.B. State Use *</b>			
<b>30.D. Railroad Use *</b>		<b>31.C. State Use *</b>			
<b>30.E. Railroad Use *</b>		<b>31.D. State Use *</b>			
<b>32.A. Narrative (Railroad Use) *</b> VERIFIED			<b>32.B. Narrative (State Use) *</b> VERIFIED		
<b>33. Emergency Notification Telephone No. (posted)</b>		<b>34. Railroad Contact (Telephone No.)</b>		<b>35. State Contact (Telephone No.)</b> 603-271-2468	

## Part II: Railroad Information

<b>1. Estimated Number of Daily Train Movements</b>				
<b>1.A. Total Day Thru Trains (6 AM to 6 PM)</b> 0	<b>1.B. Total Night Thru Trains (6 PM to 6 AM)</b> 0	<b>1.C. Total Switching Trains</b> 0	<b>1.D. Total Transit Trains</b>	<b>1.E. Check if Less Than One Movement Per Day</b> <input type="checkbox"/> <small>How many trains per week? _____</small>
<b>2. Year of Train Count Data (YYYY)</b>		<b>3. Speed of Train at Crossing</b> 3.A. Maximum Timetable Speed (mph) 15 3.B. Typical Speed Range Over Crossing (mph) From 5 to 15		
<b>4. Type and Count of Tracks</b> Main 1 Siding _____ Yard _____ Transit _____ Industry _____				
<b>5. Train Detection (Main Track only)</b> <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input checked="" type="checkbox"/> DC <input type="checkbox"/> Other <input type="checkbox"/> None				
<b>6. Is Track Signaled?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>7.A. Event Recorder</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>7.B. Remote Health Monitoring</b> <input type="checkbox"/> Yes <input type="checkbox"/> No

# U. S. DOT CROSSING INVENTORY FORM

A-6

A. Revision Date (MM/DD/YYYY) 09/15/2010		PAGE 2		D. Crossing Inventory Number (7 char.) 054122E	
<b>Part III: Highway or Pathway Traffic Control Device Information</b>					
1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 2		2.B. STOP Signs (R1-1) (count) 0	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input checked="" type="checkbox"/> W10-1 _____ <input type="checkbox"/> W10-3 _____ <input type="checkbox"/> W10-11 _____ <input type="checkbox"/> W10-2 _____ <input type="checkbox"/> W10-4 _____ <input type="checkbox"/> W10-12 _____	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count _____) <input checked="" type="checkbox"/> No		2.F. Pavement Markings <input checked="" type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None	2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No
2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2.J. Other MUTCD Signs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No	2.L. LED Enhanced Signs (List types)
<b>3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)</b>					
3.A. Gate Arms (count) Roadway <u>0</u> Pedestrian _____	3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates <input type="checkbox"/> 4 Quad	3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane <u>2</u> <input type="checkbox"/> Incandescent Not Over Traffic Lane <u>0</u> <input type="checkbox"/> LED		3.D. Mast Mounted Flashing Lights (count of masts) <u>0</u> <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included	3.E. Total Count of Flashing Light Pairs  9
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) ____/____/____ <input type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/____ <input type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3.I. Bells (count)  2
3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None				3.K. Other Flashing Lights or Warning Devices Count <u>0</u> Specify type _____	
4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs	4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____	6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None	
<b>Part IV: Physical Characteristics</b>					
1. Traffic Lanes Crossing Railroad Number of Lanes <u>2</u> <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/____ Width * _____ Length * _____ <input type="checkbox"/> 1 Timber <input type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input checked="" type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Approximate Distance (feet) _____		7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input checked="" type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Part V: Public Highway Information</b>					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input checked="" type="checkbox"/> (08) Non-Federal Aid		2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input checked="" type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input checked="" type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Highway Speed Limit <u>30</u> MPH <input checked="" type="checkbox"/> Posted <input type="checkbox"/> Statutory
5. Linear Referencing System (LRS Route ID) *					
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year <u>2009</u> AADT <u>010950</u>		8. Estimated Percent Trucks <u>05</u> %	9. Regularly Used by School Buses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Average Number per Day <u>0</u>		10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Submission Information - This information is used for administrative purposes and is not available on the public website.</b>					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					

# U. S. DOT CROSSING INVENTORY FORM

A-7

**DEPARTMENT OF TRANSPORTATION**  
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk \* denotes an optional field.

<b>A. Revision Date</b> (MM/DD/YYYY) 07 / 31 / 2006	<b>B. Reporting Agency</b> <input type="checkbox"/> Railroad <input type="checkbox"/> Transit <input checked="" type="checkbox"/> State <input type="checkbox"/> Other	<b>C. Reason for Update (Select only one)</b> <input checked="" type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction	<b>D. DOT Crossing Inventory Number</b> 054123L
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## Part I: Location and Classification Information

<b>1. Primary Operating Railroad</b> Boston & Maine Corporation [BM]		<b>2. State</b> NEW HAMPSHIRE		<b>3. County</b> ROCKINGHAM	
<b>4. City / Municipality</b> <input checked="" type="checkbox"/> In <input type="checkbox"/> Near PORTSMOUTH		<b>5. Street/Road Name &amp; Block Number</b> GREEN ST (Street/Road Name)   * (Block Number)		<b>6. Highway Type &amp; No.</b> CITY	
<b>7. Do Other Railroads Operate a Separate Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR			<b>8. Do Other Railroads Operate Over Your Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR		
<b>9. Railroad Division or Region</b> <input type="checkbox"/> None BOSTON & MAINE		<b>10. Railroad Subdivision or District</b> <input type="checkbox"/> None VS 3 MAP 55		<b>11. Branch or Line Name</b> <input type="checkbox"/> None PORTS YARD LEAD	
<b>12. RR Milepost</b> 0009.99 (prefix)   (nnnn.nnn)   (suffix)		<b>13. Line Segment</b> *		<b>14. Nearest RR Timetable Station</b> *	
<b>15. Parent RR (if applicable)</b> <input type="checkbox"/> N/A		<b>16. Crossing Owner (if applicable)</b> <input type="checkbox"/> N/A		<b>17. Crossing Type</b> <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	
<b>18. Crossing Purpose</b> <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.		<b>19. Crossing Position</b> <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over		<b>20. Public Access (if Private Crossing)</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>21. Type of Train</b> <input type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter		<input type="checkbox"/> Transit <input type="checkbox"/> Shared Use Transit <input checked="" type="checkbox"/> Tourist/Other		<b>22. Average Passenger Train Count Per Day</b> <input type="checkbox"/> Less Than One Per Day <input checked="" type="checkbox"/> Number Per Day 8	
<b>23. Type of Land Use</b> <input type="checkbox"/> Open Space <input type="checkbox"/> Farm <input type="checkbox"/> Residential <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard					
<b>24. Is there an Adjacent Crossing with a Separate Number?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Provide Crossing Number			<b>25. Quiet Zone (FRA provided)</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established		
<b>26. HSR Corridor ID</b> <input type="checkbox"/> N/A		<b>27. Latitude in decimal degrees</b> (WGS84 std: nn.nnnnnnn) 43.0796780		<b>28. Longitude in decimal degrees</b> (WGS84 std: -nnn.nnnnnnn) -70.7620320	
<b>29. Lat/Long Source</b> <input type="checkbox"/> Actual <input type="checkbox"/> Estimated		<b>30.A. Railroad Use *</b>		<b>31.A. State Use *</b> PORTSMOUTH BRANCH	
<b>30.B. Railroad Use *</b>		<b>30.C. Railroad Use *</b>		<b>30.D. Railroad Use *</b>	
<b>31.B. State Use *</b>		<b>31.C. State Use *</b>		<b>31.D. State Use *</b>	
<b>32.A. Narrative (Railroad Use) *</b>			<b>32.B. Narrative (State Use) *</b>		
<b>33. Emergency Notification Telephone No. (posted)</b>		<b>34. Railroad Contact (Telephone No.)</b>		<b>35. State Contact (Telephone No.)</b> 603-271-7145	

## Part II: Railroad Information

<b>1. Estimated Number of Daily Train Movements</b>				
<b>1.A. Total Day Thru Trains (6 AM to 6 PM)</b> 0	<b>1.B. Total Night Thru Trains (6 PM to 6 AM)</b> 0	<b>1.C. Total Switching Trains</b> 0	<b>1.D. Total Transit Trains</b>	<b>1.E. Check if Less Than One Movement Per Day</b> <input type="checkbox"/> How many trains per week? _____
<b>2. Year of Train Count Data (YYYY)</b>		<b>3. Speed of Train at Crossing</b> 3.A. Maximum Timetable Speed (mph) 25 3.B. Typical Speed Range Over Crossing (mph) From 15 to 25		
<b>4. Type and Count of Tracks</b> Main 1 Siding _____ Yard _____ Transit _____ Industry _____				
<b>5. Train Detection (Main Track only)</b> <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input checked="" type="checkbox"/> DC <input type="checkbox"/> Other <input type="checkbox"/> None				
<b>6. Is Track Signaled?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>7.A. Event Recorder</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>7.B. Remote Health Monitoring</b> <input type="checkbox"/> Yes <input type="checkbox"/> No



# U. S. DOT CROSSING INVENTORY FORM

A-8

A. Revision Date (MM/DD/YYYY) 07/31/2006		PAGE 2		D. Crossing Inventory Number (7 char.) 054123L	
Part III: Highway or Pathway Traffic Control Device Information					
1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 2		2.B. STOP Signs (R1-1) (count) 2	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input checked="" type="checkbox"/> W10-1 _____ <input type="checkbox"/> W10-3 _____ <input type="checkbox"/> W10-11 _____ <input type="checkbox"/> W10-2 _____ <input type="checkbox"/> W10-4 _____ <input type="checkbox"/> W10-12 _____	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count _____) <input checked="" type="checkbox"/> No	2.F. Pavement Markings <input type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input checked="" type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None	2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No	2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.J. Other MUTCD Signs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No		2.L. LED Enhanced Signs (List types)	
3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)					
3.A. Gate Arms (count) Roadway <u>0</u> Pedestrian _____	3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates <input type="checkbox"/> 4 Quad	3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane <u>0</u> <input type="checkbox"/> Incandescent Not Over Traffic Lane <u>0</u> <input type="checkbox"/> LED		3.D. Mast Mounted Flashing Lights (count of masts) <u>0</u> <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included	3.E. Total Count of Flashing Light Pairs <u>0</u>
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) _____/_____/_____ <input type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/_____ <input type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3.I. Bells (count) <u>0</u>
3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None				3.K. Other Flashing Lights or Warning Devices Count <u>0</u> Specify type _____	
4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs	4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____	6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None	
Part IV: Physical Characteristics					
1. Traffic Lanes Crossing Railroad <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic Number of Lanes <u>2</u> <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/_____ <input type="checkbox"/> 1 Timber <input checked="" type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Approximate Distance (feet) <u>-75</u>			7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input checked="" type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Part V: Public Highway Information					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input checked="" type="checkbox"/> (08) Non-Federal AID		2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input checked="" type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input checked="" type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Highway Speed Limit _____ MPH <input type="checkbox"/> Posted <input type="checkbox"/> Statutory
5. Linear Referencing System (LRS Route ID) *					
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year <u>1987</u> AADT <u>001250</u>		8. Estimated Percent Trucks <u>01</u> %	9. Regularly Used by School Buses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Average Number per Day <u>0</u>		10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No
Submission Information - This information is used for administrative purposes and is not available on the public website.					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					

U.S. DOT - CROSSING INVENTORY INFORMATION  
As of 7/26/2015

A-9

Revision Date: **07/31/2006**  
Reason for Update: ReasonForUpdate

Reporting Agency: **ReportingAgencyType**  
DOT Crossing Inventory No.: **054123L**

**Part I: Location and Classification information**

Primary Operating Railroad: **Boston & Maine Corporation [BM]**

State: **NEW HAMPSHIRE**

Railroad Division or Region: **BOSTON & MAINE**

County: **ROCKINGHAM**

Railroad Subdivision or District: **VS 3 MAP 55**

City/Municipality: Neares **PORTSMOUTH**  
t

Branch or Line Name: **PORTS YARD LEAD**

Street/Road Name & Block #: **GREEN ST**

RR Milepost: **9.99**

Highway Type & No.: **CITY**

Nearest RR Timetable Station: **PORTSMOUTH**

Parent RR:

Line Segment:

Crossing Owner:

Do Other Railroads Operate a Separate Track at Crossing? **No**

**SeparateTrackRailroads**

Do Other Railroads Operate Over Your Track at Crossing? **No**

**SameTrackRailroads**

Crossing Type: **CrossingType**

Public Access:

Crossing Purpose: **CrossingPurpo**

Type of Train: **TypeOfTrainService**

Crossing Position: **CrossingPositi**  
**on**

Type of Land Use: **TypeofLandUse**

Avg Passenger Train Count Per Day: **AveragePas**  
**sengerTrain**  
**PerDay**

Is there Adjacent Crossing with a Separate Number? **No**

Provide Crossing Number:

Quiet Zone: **QuietZone**

Latitude: **43.0796780**

HSR Corridor ID:

Longitude: **-70.7620320**

Lat/Long Source: **LatitudeAndLongitudeSource**

**Railroad Use (Comments)**

A:

**State Use (Comments)**

A: PORTSMOUTH BRANCH

B:

B:

C:

C:

D:

D:

Narrative:

Narrative:

Emergency Notification Phone No.

Railroad Contact:

State Contact: **603-271-7145**

**Part II: Railroad Information**

Total Day Thru Trains: **0**

Total Night Thru Trains: **0**

Less Than One Movement Per Day?

Total Switching Trains: **0**

Total Transit Trains:

Total Trains Per week:

Year Of Train Count Data:

Maximum Timetable Speed: **25**

Typical Speed Range Over Crossing: From **15** to **25** mph

Type and Count of Tracks: Main: **1**

Siding:

Yard:

Transit:

Industry:

Train Detection: **TrainDetection**

Track Signaled: **No**

Event Recorder:

Remote Health Monitoring:

# U.S. DOT - CROSSING INVENTORY INFORMATION (continued)

A-10

Revision Date: **07/31/2006**

DOT Crossing Inventory No: **054123L**

## Part III: Highway or Pathway Traffic Control Device Information

Signs or Signals? **Yes**

Types of Passive Traffic Control Devices associated with the Crossing

Crossbucks Assemblies: <b>2</b>	Stop Signs (R1-1): <b>2</b>	Yield Signs (R1-2):
Low Ground Clearance Sign (W10-5): <b>No</b>		Advanced Warning Signs: <b>No</b>
Pavement Markings: <b>PavementMarkings</b>		W10-1: W10-4:
Channelization Devices/Medians: <b>ChannelizationDevices</b>		W10-2: W10-11:
EXEMPT Sign (R15-3):		W10-3: W10-12:
ENS Sign Displayed (I-13): <b>No</b>		
Other MUTCD Signs (Type):		Count:
Other MUTCD Signs (Type):		Count:
Other MUTCD Signs (Type):		Count:
Private Crossing Signs (if private):		LED Enhanced Signs:

Types of Train Activated Warning Devices at the Grade Crossing

Gates Arms:	Gate Configuration: <b>GateConfigurationTypes</b>
Roadway: <b>0</b>	Cantilevered (or Bridged) Flashing Light Structures:
Pedestrian:	Over Traffic Lane: <b>0</b> Incandescent:
	Not Over Traffic Lane: <b>0</b> LED:
Mast Mounted Flashing lights: <b>0</b>	Incandescent: Back Lights Included: Side Lights Included:
Total Count of Flashing Light Pairs: <b>0</b>	Wayside Horn: Installed on:
Highway Traffic Signals Controlling Crossing: <b>No</b>	Installation Date of Current Active Warning Devices: <b>ActiveWarningDevicesInstallation</b>
Non-Train Active Warning: <b>NonTrainActiveWarnings</b>	Bells: <b>0</b>
Other Flashing Lights or Warning Devices: (count) <b>0</b>	Type:
Does Nearby Hwy Intersection have Traffic Signals: <b>No</b>	Hwy Traffic Signal Interconnection: <b>HwyTrafficSignalInterconnection</b>
Highway Traffic Signal Preemption: <b>HighwayTrafficSignalPreemption</b>	Highway Traffic Pre-Signals:
	Storage Distance: Stop Line Distance:
Highway Monitoring Devices: <b>HwyMonitoringDevice</b>	

## Part IV: Physical Characteristics

Traffic Lanes Crossing Railroad: Number of Lanes: <b>2</b>	<b>TrafficLaneType</b>
Is Roadway/Pathway Paved? <b>Yes</b>	Does Track Run Down a Street? <b>No</b> Is Crossing Illuminated? <b>Yes</b>
Crossing Surface: <b>CrossingSurface</b>	
Other (specify):	
Installation Date: <b>CrossingSurfa</b>	Width: Length:
Intersecting Roadway within 500 feet? <b>Yes</b>	If Yes, Approximate Distance (Feet): <b>-75</b>
Smallest Crossing Angle: <b>SmallestCrossingAngle</b>	Is Commercial Power Available? <b>Yes</b>

## Part V: Public Highway Information

Highway System: <b>HighwaySystem</b>	Functional Classification of Road at Crossing: <b>Functional FunctionalClassificationOfRoad</b>
Is Crossing on State Highway System? <b>No</b>	Highway Speed Limit: <b>HighwaySp</b>
Linear Referencing System (LRS Route ID):	LRS Milepost:
Annual Average Daily Traffic (AADT): Year <b>1987</b>	AADT: <b>001250</b> Estimated Percent Trucks: <b>01</b>

Regularly Used by School Buses? **No**

Average Number per Day: **0**

Emergency Services Route:

A-11

# U. S. DOT CROSSING INVENTORY FORM

A-12

**DEPARTMENT OF TRANSPORTATION**  
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk \* denotes an optional field.

<b>A. Revision Date</b> (MM/DD/YYYY) 07 / 31 / 2006	<b>B. Reporting Agency</b> <input type="checkbox"/> Railroad <input type="checkbox"/> Transit <input checked="" type="checkbox"/> State <input type="checkbox"/> Other	<b>C. Reason for Update (Select only one)</b> <input checked="" type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction	<b>D. DOT Crossing Inventory Number</b> 054125A
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## Part I: Location and Classification Information

<b>1. Primary Operating Railroad</b> Boston & Maine Corporation [BM]		<b>2. State</b> NEW HAMPSHIRE		<b>3. County</b> ROCKINGHAM	
<b>4. City / Municipality</b> <input checked="" type="checkbox"/> In <input type="checkbox"/> Near PORTSMOUTH		<b>5. Street/Road Name &amp; Block Number</b> MARKET ST <small>(Street/Road Name)   * (Block Number)</small>		<b>6. Highway Type &amp; No.</b> CITY	
<b>7. Do Other Railroads Operate a Separate Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <small>If Yes, Specify RR</small>			<b>8. Do Other Railroads Operate Over Your Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <small>If Yes, Specify RR</small>		
<b>9. Railroad Division or Region</b> <input type="checkbox"/> None BOSTON & MAINE		<b>10. Railroad Subdivision or District</b> <input type="checkbox"/> None VS 3 MAP 55		<b>11. Branch or Line Name</b> <input type="checkbox"/> None PORTS YARD LEAD	
<b>12. RR Milepost</b> 0000.03 <small>(prefix)   (nnnn.nnn)   (suffix)</small>		<b>13. Line Segment</b> *		<b>14. Nearest RR Timetable Station</b> PORTSMOUTH	
<b>15. Parent RR (if applicable)</b> <input type="checkbox"/> N/A		<b>16. Crossing Owner (if applicable)</b> <input type="checkbox"/> N/A		<b>17. Crossing Type</b> <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	
<b>18. Crossing Purpose</b> <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.		<b>19. Crossing Position</b> <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over		<b>20. Public Access (if Private Crossing)</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>21. Type of Train</b> <input type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter		<input type="checkbox"/> Transit <input type="checkbox"/> Shared Use Transit <input checked="" type="checkbox"/> Tourist/Other		<b>22. Average Passenger Train Count Per Day</b> <input type="checkbox"/> Less Than One Per Day <input checked="" type="checkbox"/> Number Per Day 8	
<b>23. Type of Land Use</b> <input type="checkbox"/> Open Space <input type="checkbox"/> Farm <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard					
<b>24. Is there an Adjacent Crossing with a Separate Number?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <small>If Yes, Provide Crossing Number</small>			<b>25. Quiet Zone (FRA provided)</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused <small>Date Established</small>		
<b>26. HSR Corridor ID</b> <input type="checkbox"/> N/A		<b>27. Latitude in decimal degrees</b> <small>(WGS84 std: nn.nnnnnnn)</small> 43.0817990		<b>28. Longitude in decimal degrees</b> <small>(WGS84 std: -nnn.nnnnnnn)</small> -70.7624970	
<b>29. Lat/Long Source</b> <input type="checkbox"/> Actual <input type="checkbox"/> Estimated		<b>30.A. Railroad Use *</b>		<b>31.A. State Use *</b> NEWINGTON BRANCH	
<b>30.B. Railroad Use *</b>		<b>30.C. Railroad Use *</b>		<b>30.D. Railroad Use *</b>	
<b>31.B. State Use *</b>		<b>31.C. State Use *</b>		<b>31.D. State Use *</b>	
<b>32.A. Narrative (Railroad Use) *</b>			<b>32.B. Narrative (State Use) *</b>		
<b>33. Emergency Notification Telephone No. (posted)</b>		<b>34. Railroad Contact (Telephone No.)</b>		<b>35. State Contact (Telephone No.)</b> 603-271-7145	

## Part II: Railroad Information

<b>1. Estimated Number of Daily Train Movements</b>				
<b>1.A. Total Day Thru Trains (6 AM to 6 PM)</b> 0	<b>1.B. Total Night Thru Trains (6 PM to 6 AM)</b> 0	<b>1.C. Total Switching Trains</b> 0	<b>1.D. Total Transit Trains</b>	<b>1.E. Check if Less Than One Movement Per Day</b> <input type="checkbox"/> <small>How many trains per week? _____</small>
<b>2. Year of Train Count Data (YYYY)</b>		<b>3. Speed of Train at Crossing</b> 3.A. Maximum Timetable Speed (mph) 15 3.B. Typical Speed Range Over Crossing (mph) From 5 to 15		
<b>4. Type and Count of Tracks</b> Main 1 Siding _____ Yard _____ Transit _____ Industry _____				
<b>5. Train Detection (Main Track only)</b> <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input checked="" type="checkbox"/> DC <input type="checkbox"/> Other <input type="checkbox"/> None				
<b>6. Is Track Signaled?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>7.A. Event Recorder</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>7.B. Remote Health Monitoring</b> <input type="checkbox"/> Yes <input type="checkbox"/> No

# U. S. DOT CROSSING INVENTORY FORM

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A. Revision Date (MM/DD/YYYY) 07/31/2006		PAGE 2		D. Crossing Inventory Number (7 char.) 054125A	
Part III: Highway or Pathway Traffic Control Device Information					
1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 4		2.B. STOP Signs (R1-1) (count) 0	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input checked="" type="checkbox"/> W10-1 _____ <input type="checkbox"/> W10-3 _____ <input type="checkbox"/> W10-11 _____ <input type="checkbox"/> W10-2 _____ <input type="checkbox"/> W10-4 _____ <input type="checkbox"/> W10-12 _____	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count _____) <input checked="" type="checkbox"/> No	2.F. Pavement Markings <input type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input checked="" type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None	2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No	2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.J. Other MUTCD Signs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No		2.L. LED Enhanced Signs (List types)	
3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)					
3.A. Gate Arms (count) Roadway 0 Pedestrian _____	3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates <input type="checkbox"/> 4 Quad	3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane 0 <input type="checkbox"/> Incandescent Not Over Traffic Lane 0 <input type="checkbox"/> LED		3.D. Mast Mounted Flashing Lights (count of masts) 4 <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included	3.E. Total Count of Flashing Light Pairs 6
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) ____/____/____ <input type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/____ <input type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3.I. Bells (count) 2
3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None				3.K. Other Flashing Lights or Warning Devices Count 0 Specify type _____	
4.A. Does nearby Hwy Intersection have Traffic Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs	4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____	6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None	
Part IV: Physical Characteristics					
1. Traffic Lanes Crossing Railroad <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic Number of Lanes 4 <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/____ Width * _____ Length * _____ <input type="checkbox"/> 1 Timber <input checked="" type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Approximate Distance (feet) -200			7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input checked="" type="checkbox"/> 30° - 59° <input type="checkbox"/> 60° - 90°	8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Part V: Public Highway Information					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input checked="" type="checkbox"/> (03) Federal AID, Not NHS <input type="checkbox"/> (08) Non-Federal Aid		2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input checked="" type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input checked="" type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Highway Speed Limit System _____ MPH <input type="checkbox"/> Posted <input type="checkbox"/> Statutory
5. Linear Referencing System (LRS Route ID) *					
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year 1987 AADT 000375		8. Estimated Percent Trucks 05 %	9. Regularly Used by School Buses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Average Number per Day 0		10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No
Submission Information - This information is used for administrative purposes and is not available on the public website.					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					

U.S. DOT - CROSSING INVENTORY INFORMATION  
As of 7/26/2015

A-14

Revision Date: 07/31/2006  
Reason for Update: ReasonForUpdate

Reporting Agency: DOT Crossing Inventory No.:  
ReportingAgencyType: 054125A

Part I: Location and Classification information

Primary Operating Railroad: Boston & Maine Corporation [BM]

State: NEW HAMPSHIRE

Railroad Division or Region: BOSTON & MAINE

County: ROCKINGHAM

Railroad Subdivision or District: VS 3 MAP 55

City/Municipality: Neares PORTSMOUTH  
t

Branch or Line Name: PORTS YARD LEAD

Street/Road Name & Block #: MARKET ST

RR Milepost: 0.03

Highway Type & No.: CITY

Nearest RR Timetable Station: PORTSMOUTH

Parent RR:

Crossing Owner:

Line Segment:

Do Other Railroads Operate a Separate Track at Crossing? No

SeparateTrackRailroads

Do Other Railroads Operate Over Your Track at Crossing? No

SameTrackRailroads

Crossing Type: CrossingType

Public Access:

Crossing Purpose: CrossingPurpo

Type of Train: TypeOfTrainService

Crossing Position: CrossingPositi  
on

Type of Land Use: TypeofLandUse

Avg Passenger Train Count Per Day: AveragePas  
sengerTrain  
PerDay

Is there Adjacent Crossing with a Separate Number? No

Provide Crossing Number:

Quiet Zone: QuietZone

Latitude: 43.0817990

HSR Corridor ID:

Longitude: -70.7624970

Lat/Long Source: LatitudeAndLongitudeSource

Railroad Use (Comments)

A:

State Use (Comments)

A: NEWINGTON BRANCH

B:

B:

C:

C:

D:

D:

Narrative:

Narrative:

Emergency Notification Phone No.

Railroad Contact:

State Contact: 603-271-7145

Part II: Railroad Information

Total Day Thru Trains: 0

Total Night Thru Trains: 0

Less Than One Movement Per Day?

Total Switching Trains: 0

Total Transit Trains:

Total Trains Per week:

Year Of Train Count Data:

Maximum Timetable Speed: 15

Typical Speed Range Over Crossing: From 5 to 15 mph

Type and Count of Tracks: Main: 1

Siding:

Yard:

Transit:

Industry:

Train Detection: TrainDetection

Track Signaled: No

Event Recorder:

Remote Health Monitoring:

# U.S. DOT - CROSSING INVENTORY INFORMATION (continued)

Revision Date: 07/31/2006

DOT Crossing Inventory No: 054125A

## Part III: Highway or Pathway Traffic Control Device Information

Signs or Signals? Yes

Types of Passive Traffic Control Devices associated with the Crossing

<b>Crossbucks Assemblies:</b> 4	Stop Signs (R1-1): 0	Yield Signs (R1-2):
Low Ground Clearance Sign (W10-5): No		Advanced Warning Signs: No
Pavement Markings:	PavementMarkings	W10-1: W10-4:
Channelization Devices/Medians:	ChannelizationDevices	W10-2: W10-11:
EXEMPT Sign (R15-3):		W10-3: W10-12:
ENS Sign Displayed (I-13): No		
Other MUTCD Signs (Type):		Count:
Other MUTCD Signs (Type):		Count:
Other MUTCD Signs (Type):		Count:
Private Crossing Signs (if private):		LED Enhanced Signs:

Types of Train Activated Warning Devices at the Grade Crossing

Gates Arms:	Gate Configuration: GateConfigurationTypes
Roadway: 0	Cantilevered (or Bridged) Flashing Light Structures:
Pedestrian:	Over Traffic Lane: 0 Incandescent:
	Not Over Traffic Lane: 0 LED:
Mast Mounted Flashing lights: 4	Incandescent: Back Lights Included: Side Lights Included:
Total Count of Flashing Light Pairs: 6	Wayside Horn: Installed on:
Highway Traffic Signals Controlling Crossing: No	Installation Date of Current Active Warning Devices: ActiveWarningDevicesInstallation
Non-Train Active Warning: NonTrainActiveWarnings	Bells: 2
Other Flashing Lights or Warning Devices: (count) 0	Type:
Does Nearby Hwy Intersection have Traffic Signals: Yes	Hwy Traffic Signal Interconnection: HwyTrafficSignalInterconnection
Highway Traffic Signal Preemption:	HighwayTrafficSignalPreemption Highway Traffic Pre-Signals:
	Storage Distance: Stop Line Distance:
Highway Monitoring Devices: HwyMonitoringDevice	

## Part IV: Physical Characteristics

Traffic Lanes Crossing Railroad: Number of Lanes: 4	TrafficLaneType
Is Roadway/Pathway Paved? Yes	Does Track Run Down a Street? No Is Crossing Illuminated? Yes
Crossing Surface: CrossingSurface	
Other (specify):	
Installation Date: CrossingSurfa	Width: Length:
Intersecting Roadway within 500 feet? Yes	If Yes, Approximate Distance (Feet): -200
Smallest Crossing Angle: SmallestCrossingAngle	Is Commercial Power Available? Yes

## Part V: Public Highway Information

Highway System: HighwaySystem	Functional Classification of Road at Crossing: Functional FunctionalClassificationOfRoad
Is Crossing on State Highway System? No	Highway Speed Limit: HighwaySp
Linear Referencing System (LRS Route ID):	LRS Milepost:
Annual Average Daily Traffic (AADT): Year 1987	AADT: 000375 Estimated Percent Trucks: 05



Regularly Used by School Buses? No

Average Number per Day: 0

Emergency Services Route:

A-16

# U. S. DOT CROSSING INVENTORY FORM

A-17

**DEPARTMENT OF TRANSPORTATION**  
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk \* denotes an optional field.

<b>A. Revision Date</b> (MM/DD/YYYY) 09 / 16 / 2010	<b>B. Reporting Agency</b> <input type="checkbox"/> Railroad <input type="checkbox"/> Transit <input checked="" type="checkbox"/> State <input type="checkbox"/> Other	<b>C. Reason for Update (Select only one)</b> <input checked="" type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction	<b>D. DOT Crossing Inventory Number</b> 054138B
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## Part I: Location and Classification Information

<b>1. Primary Operating Railroad</b> Boston & Maine Corporation [BM]		<b>2. State</b> NEW HAMPSHIRE		<b>3. County</b> ROCKINGHAM	
<b>4. City / Municipality</b> <input checked="" type="checkbox"/> In <input type="checkbox"/> Near NEWINGTON		<b>5. Street/Road Name &amp; Block Number</b> PATTERSON LN <small>(Street/Road Name)   * (Block Number)</small>		<b>6. Highway Type &amp; No.</b> LR-085	
<b>7. Do Other Railroads Operate a Separate Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <small>If Yes, Specify RR</small>			<b>8. Do Other Railroads Operate Over Your Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <small>If Yes, Specify RR</small>		
<b>9. Railroad Division or Region</b> <input type="checkbox"/> None BOSTON & MAINE		<b>10. Railroad Subdivision or District</b> <input type="checkbox"/> None VS 3 MAP 56C		<b>11. Branch or Line Name</b> <input type="checkbox"/> None NEWINGTON BR	
<b>12. RR Milepost</b> 0002.86 <small>(prefix)   (nnnn.nnn)   (suffix)</small>		<b>13. Line Segment</b> *		<b>14. Nearest RR Timetable Station</b> * PORTSMOUTH	
<b>15. Parent RR (if applicable)</b> <input type="checkbox"/> N/A		<b>16. Crossing Owner (if applicable)</b> <input type="checkbox"/> N/A		<b>17. Crossing Type</b> <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	
<b>18. Crossing Purpose</b> <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.		<b>19. Crossing Position</b> <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over		<b>20. Public Access (if Private Crossing)</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>21. Type of Train</b> <input type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter		<input type="checkbox"/> Transit <input type="checkbox"/> Shared Use Transit <input checked="" type="checkbox"/> Tourist/Other		<b>22. Average Passenger Train Count Per Day</b> <input type="checkbox"/> Less Than One Per Day <input checked="" type="checkbox"/> Number Per Day 8	
<b>23. Type of Land Use</b> <input type="checkbox"/> Open Space <input type="checkbox"/> Farm <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard					
<b>24. Is there an Adjacent Crossing with a Separate Number?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <small>If Yes, Provide Crossing Number</small>			<b>25. Quiet Zone (FRA provided)</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused <small>Date Established</small>		
<b>26. HSR Corridor ID</b> <input type="checkbox"/> N/A		<b>27. Latitude in decimal degrees</b> <small>(WGS84 std: nn.nnnnnnn)</small> 43.1085003		<b>28. Longitude in decimal degrees</b> <small>(WGS84 std: -nnn.nnnnnnn)</small> -70.8050314	
<b>29. Lat/Long Source</b> <input checked="" type="checkbox"/> Actual <input type="checkbox"/> Estimated					
<b>30.A. Railroad Use *</b>			<b>31.A. State Use *</b> AADT ESTIMATED		
<b>30.B. Railroad Use *</b>			<b>31.B. State Use *</b>		
<b>30.C. Railroad Use *</b>			<b>31.C. State Use *</b>		
<b>30.D. Railroad Use *</b>			<b>31.D. State Use *</b>		
<b>32.A. Narrative (Railroad Use) *</b> VERIFIED			<b>32.B. Narrative (State Use) *</b> VERIFIED		
<b>33. Emergency Notification Telephone No. (posted)</b>		<b>34. Railroad Contact (Telephone No.)</b>		<b>35. State Contact (Telephone No.)</b> 603-271-2468	

## Part II: Railroad Information

<b>1. Estimated Number of Daily Train Movements</b>				
<b>1.A. Total Day Thru Trains (6 AM to 6 PM)</b> 0	<b>1.B. Total Night Thru Trains (6 PM to 6 AM)</b> 0	<b>1.C. Total Switching Trains</b> 0	<b>1.D. Total Transit Trains</b>	<b>1.E. Check if Less Than One Movement Per Day</b> <input type="checkbox"/> <small>How many trains per week? _____</small>
<b>2. Year of Train Count Data (YYYY)</b>		<b>3. Speed of Train at Crossing</b> 3.A. Maximum Timetable Speed (mph) 15 3.B. Typical Speed Range Over Crossing (mph) From 5 to 15		
<b>4. Type and Count of Tracks</b> Main 1 Siding _____ Yard _____ Transit _____ Industry _____				
<b>5. Train Detection (Main Track only)</b> <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input type="checkbox"/> DC <input type="checkbox"/> Other <input checked="" type="checkbox"/> None				
<b>6. Is Track Signaled?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>7.A. Event Recorder</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>7.B. Remote Health Monitoring</b> <input type="checkbox"/> Yes <input type="checkbox"/> No

# U. S. DOT CROSSING INVENTORY FORM

A-18

A. Revision Date (MM/DD/YYYY) 09/16/2010		PAGE 2		D. Crossing Inventory Number (7 char.) 054138B	
Part III: Highway or Pathway Traffic Control Device Information					
1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 1		2.B. STOP Signs (R1-1) (count) 0	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input checked="" type="checkbox"/> W10-1 _____ <input type="checkbox"/> W10-3 _____ <input type="checkbox"/> W10-11 _____ <input type="checkbox"/> W10-2 _____ <input type="checkbox"/> W10-4 _____ <input type="checkbox"/> W10-12 _____	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count _____) <input checked="" type="checkbox"/> No	2.F. Pavement Markings <input type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input checked="" type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None	2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No	2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.J. Other MUTCD Signs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No		2.L. LED Enhanced Signs (List types)	
3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)					
3.A. Gate Arms (count) Roadway 0 Pedestrian _____	3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates <input type="checkbox"/> 4 Quad	3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane 0 <input type="checkbox"/> Incandescent Not Over Traffic Lane 0 <input type="checkbox"/> LED		3.D. Mast Mounted Flashing Lights (count of masts) 0 <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included	3.E. Total Count of Flashing Light Pairs 0
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) _____/_____/_____ <input type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/_____ <input type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3.I. Bells (count) 0
3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None				3.K. Other Flashing Lights or Warning Devices Count 0 Specify type _____	
4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs	4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____	6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None	
Part IV: Physical Characteristics					
1. Traffic Lanes Crossing Railroad <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic Number of Lanes 2 <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/_____ <input type="checkbox"/> 1 Timber <input checked="" type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Approximate Distance (feet) _____			7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input checked="" type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Part V: Public Highway Information					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input checked="" type="checkbox"/> (08) Non-Federal AID		2. Functional Classification of Road at Crossing <input checked="" type="checkbox"/> (0) Rural <input type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input checked="" type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Highway Speed Limit 20 _____ MPH <input checked="" type="checkbox"/> Posted <input type="checkbox"/> Statutory
5. Linear Referencing System (LRS Route ID) *					
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year 2009 AADT 000560		8. Estimated Percent Trucks 00 _____ %	9. Regularly Used by School Buses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Average Number per Day 0 _____		10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No
Submission Information - This information is used for administrative purposes and is not available on the public website.					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					

U.S. DOT - CROSSING INVENTORY INFORMATION  
As of 7/26/2015

A-19

Revision Date: 09/16/2010  
Reason for Update: ReasonForUpdate

Reporting Agency: ReportingAgencyType  
DOT Crossing Inventory No.: 054138B

Part I: Location and Classification information

Primary Operating Railroad: Boston & Maine Corporation [BM]

State: NEW HAMPSHIRE  
County: ROCKINGHAM  
City/Municipality: Neares NEWINGTON  
t

Railroad Division or Region: BOSTON & MAINE  
Railroad Subdivision or District: VS 3 MAP 56C  
Branch or Line Name: NEWINGTON BR

Street/Road Name & Block #: PATTERSON LN  
Highway Type & No.: LR-085

RR Milepost: 2.86  
Nearest RR Timetable Station: PORTSMOUTH

Parent RR:

Crossing Owner:

Line Segment:

Do Other Railroads Operate a Separate Track at Crossing? No

SeparateTrackRailroads

Do Other Railroads Operate Over Your Track at Crossing? No

SameTrackRailroads

Crossing Type: CrossingType  
Crossing Purpose: CrossingPurpo  
se  
Crossing Position: CrossingPositi  
on

Public Access:  
Type of Train: TypeOfTrainService

Type of Land Use: TypeofLandUse

Avg Passenger Train Count Per Day: AveragePas  
sengerTrain  
PerDay

Is there Adjacent Crossing with a Separate Number? No

Provide Crossing Number:

Quiet Zone: QuietZone

Latitude: 43.1085003

HSR Corridor ID:

Longitude: -70.8050314

Lat/Long Source: LatitudeAndLongitudeSource

Railroad Use (Comments)

A:

State Use (Comments)

A: AADT ESTIMATED

B:

B:

C:

C:

D:

D:

Narrative: VERIFIED

Narrative: VERIFIED

Emergency Notification Phone No.

Railroad Contact:

State Contact: 603-271-2468

Part II: Railroad Information

Total Day Thru Trains: 0 Total Night Thru Trains: 0 Less Than One Movement Per Day?

Total Switching Trains: 0 Total Transit Trains: Total Trains Per week:

Year Of Train Count Data:

Maximum Timetable Speed: 15 Typical Speed Range Over Crossing: From 5 to 15 mph

Type and Count of Tracks: Main: 1 Siding: Yard: Transit: Industry:

Train Detection: TrainDetection

Track Signaled: No

Event Recorder:

Remote Health Monitoring:

### U.S. DOT - CROSSING INVENTORY INFORMATION (continued)

Revision Date: 09/16/2010

DOT Crossing Inventory No: 054138B

#### Part III: Highway or Pathway Traffic Control Device Information

Signs or Signals? Yes

Types of Passive Traffic Control Devices associated with the Crossing

Crossbucks Assemblies: 1 Stop Signs (R1-1): 0 Yield Signs (R1-2):  
 Low Ground Clearance Sign (W10-5): No Advanced Warning Signs: No  
 Pavement Markings: PavementMarkings W10-1: W10-4:  
 Channelization Devices/Medians: ChannelizationDevices W10-2: W10-11:  
 EXEMPT Sign (R15-3): W10-3: W10-12:  
 ENS Sign Displayed (I-13): No  
 Other MUTCD Signs (Type): Count:  
 Other MUTCD Signs (Type): Count:  
 Other MUTCD Signs (Type): Count:  
 Private Crossing Signs (if private): LED Enhanced Signs:

Types of Train Activated Warning Devices at the Grade Crossing

Gates Arms: Gate Configuration: GateConfigurationTypes  
 Roadway: 0 Cantilevered (or Bridged) Flashing Light Structures:  
 Pedestrian: Over Traffic Lane: 0 Incandescent:  
 Not Over Traffic Lane: 0 LED:  
 Mast Mounted Flashing lights: 0 Incandescent: LED: Back Lights Included: Side Lights Included:  
 Total Count of Flashing Light Pairs: 0 Wayside Horn: Installed on:  
 Highway Traffic Signals Controlling Crossing: No Installation Date of Current Active Warning Devices: ActiveWarningDevicesInstallation  
 Non-Train Active Warning: NonTrainActiveWarnings Bells: 0  
 Other Flashing Lights or Warning Devices: (count) 0 Type:  
 Does Nearby Hwy Intersection have Traffic Signals: No Hwy Traffic Signal Interconnection: HwyTrafficSignalInterconnection  
 Highway Traffic Signal Preemption: HighwayTrafficSignalPreemption Highway Traffic Pre-Signals:  
 Storage Distance: Stop Line Distance:  
 Highway Monitoring Devices: HwyMonitoringDevice

#### Part IV: Physical Characteristics

Traffic Lanes Crossing Railroad: Number of Lanes: 2 TrafficLaneType  
 Is Roadway/Pathway Paved? Yes Does Track Run Down a Street? No Is Crossing Illuminated? No  
 Crossing Surface: CrossingSurface  
 Other (specify):  
 Installation Date: CrossingSurfa Width: Length:  
 Intersecting Roadway within 500 feet? No If Yes, Approximate Distance (Feet):  
 Smallest Crossing Angle: SmallestCrossingAngle Is Commercial Power Available? Yes

#### Part V: Public Highway Information

Highway System: HighwaySystem Functional Classification of Road at Crossing: Functional FunctionalClassificationOfRoad  
 Is Crossing on State Highway System? No Highway Speed Limit: 20 HighwaySp  
 Linear Referencing System (LRS Route ID): LRS Milepost:  
 Annual Average Daily Traffic (AADT): Year 2009 AADT: 000560 Estimated Percent Trucks: 00

Regularly Used by School Buses? No

Average Number per Day: 0

Emergency Services Route:

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# U. S. DOT CROSSING INVENTORY FORM

A-22

**DEPARTMENT OF TRANSPORTATION**  
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk \* denotes an optional field.

<b>A. Revision Date</b> (MM/DD/YYYY) 09 / 15 / 2010	<b>B. Reporting Agency</b> <input type="checkbox"/> Railroad <input type="checkbox"/> Transit <input checked="" type="checkbox"/> State <input type="checkbox"/> Other	<b>C. Reason for Update (Select only one)</b> <input checked="" type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction	<b>D. DOT Crossing Inventory Number</b> 054410Y
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## Part I: Location and Classification Information

<b>1. Primary Operating Railroad</b> Boston & Maine Corporation [BM]		<b>2. State</b> NEW HAMPSHIRE		<b>3. County</b> ROCKINGHAM	
<b>4. City / Municipality</b> <input checked="" type="checkbox"/> In <input type="checkbox"/> Near PORTSMOUTH		<b>5. Street/Road Name &amp; Block Number</b> BARBERRY LN <small>(Street/Road Name)   * (Block Number)</small>		<b>6. Highway Type &amp; No.</b> LS-258	
<b>7. Do Other Railroads Operate a Separate Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <small>If Yes, Specify RR</small>			<b>8. Do Other Railroads Operate Over Your Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <small>If Yes, Specify RR</small>		
<b>9. Railroad Division or Region</b> <input type="checkbox"/> None BOSTON & MAINE		<b>10. Railroad Subdivision or District</b> <input type="checkbox"/> None VS 28 MAP 2		<b>11. Branch or Line Name</b> <input type="checkbox"/> None PORTSMOUTH BR	
<b>12. RR Milepost</b> 0008.90 <small>(prefix)   (nnnn.nnn)   (suffix)</small>		<b>13. Line Segment</b> *		<b>14. Nearest RR Timetable Station</b> *	
<b>15. Parent RR (if applicable)</b> <input type="checkbox"/> N/A		<b>16. Crossing Owner (if applicable)</b> <input type="checkbox"/> N/A		<b>17. Crossing Type</b> <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	
<b>18. Crossing Purpose</b> <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.		<b>19. Crossing Position</b> <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over		<b>20. Public Access (if Private Crossing)</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>21. Type of Train</b> <input type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter		<input type="checkbox"/> Transit <input type="checkbox"/> Shared Use Transit <input type="checkbox"/> Tourist/Other		<b>22. Average Passenger Train Count Per Day</b> <input type="checkbox"/> Less Than One Per Day <input type="checkbox"/> Number Per Day 0	
<b>23. Type of Land Use</b> <input type="checkbox"/> Open Space <input type="checkbox"/> Farm <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard					
<b>24. Is there an Adjacent Crossing with a Separate Number?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <small>If Yes, Provide Crossing Number</small>			<b>25. Quiet Zone (FRA provided)</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused <small>Date Established</small>		
<b>26. HSR Corridor ID</b> <input type="checkbox"/> N/A		<b>27. Latitude in decimal degrees</b> <small>(WGS84 std: nn.nnnnnnn)</small> 43.0656996		<b>28. Longitude in decimal degrees</b> <small>(WGS84 std: -nnn.nnnnnnn)</small> -70.7791763	
<b>29. Lat/Long Source</b> <input checked="" type="checkbox"/> Actual <input type="checkbox"/> Estimated		<b>30.A. Railroad Use *</b>			
<b>30.B. Railroad Use *</b>		<b>31.A. State Use *</b> AADT ESTIMATED			
<b>30.C. Railroad Use *</b>		<b>31.B. State Use *</b>			
<b>30.D. Railroad Use *</b>		<b>31.C. State Use *</b>			
<b>30.E. Railroad Use *</b>		<b>31.D. State Use *</b>			
<b>32.A. Narrative (Railroad Use) *</b> VERIFIED			<b>32.B. Narrative (State Use) *</b> VERIFIED		
<b>33. Emergency Notification Telephone No. (posted)</b>		<b>34. Railroad Contact (Telephone No.)</b>		<b>35. State Contact (Telephone No.)</b> 603-271-2468	

## Part II: Railroad Information

<b>1. Estimated Number of Daily Train Movements</b>				
<b>1.A. Total Day Thru Trains (6 AM to 6 PM)</b> 0	<b>1.B. Total Night Thru Trains (6 PM to 6 AM)</b> 0	<b>1.C. Total Switching Trains</b> 4	<b>1.D. Total Transit Trains</b>	<b>1.E. Check if Less Than One Movement Per Day</b> <input type="checkbox"/> <small>How many trains per week? _____</small>
<b>2. Year of Train Count Data (YYYY)</b>		<b>3. Speed of Train at Crossing</b> 3.A. Maximum Timetable Speed (mph) 10 3.B. Typical Speed Range Over Crossing (mph) From 5 to 10		
<b>4. Type and Count of Tracks</b> Main 1 Siding _____ Yard _____ Transit _____ Industry _____				
<b>5. Train Detection (Main Track only)</b> <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input checked="" type="checkbox"/> DC <input type="checkbox"/> Other <input type="checkbox"/> None				
<b>6. Is Track Signaled?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>7.A. Event Recorder</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>7.B. Remote Health Monitoring</b> <input type="checkbox"/> Yes <input type="checkbox"/> No

# U. S. DOT CROSSING INVENTORY FORM

A-23

A. Revision Date (MM/DD/YYYY) 09/15/2010		PAGE 2		D. Crossing Inventory Number (7 char.) 054410Y	
<b>Part III: Highway or Pathway Traffic Control Device Information</b>					
1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 2		2.B. STOP Signs (R1-1) (count) 2	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input checked="" type="checkbox"/> W10-1 _____ <input type="checkbox"/> W10-3 _____ <input type="checkbox"/> W10-11 _____ <input type="checkbox"/> W10-2 _____ <input type="checkbox"/> W10-4 _____ <input type="checkbox"/> W10-12 _____	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count _____) <input checked="" type="checkbox"/> No		2.F. Pavement Markings <input type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input checked="" type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None	2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No
2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2.J. Other MUTCD Signs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No	2.L. LED Enhanced Signs (List types)
3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)					
3.A. Gate Arms (count) Roadway 0 Pedestrian _____	3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates	3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane 0 <input type="checkbox"/> Incandescent Not Over Traffic Lane 0 <input type="checkbox"/> LED		3.D. Mast Mounted Flashing Lights (count of masts) 0 <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included	3.E. Total Count of Flashing Light Pairs 0
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) ____/____/____ <input type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/____ <input type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3.I. Bells (count) 0
3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None				3.K. Other Flashing Lights or Warning Devices Count 0 Specify type _____	
4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs	4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____	6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None	
<b>Part IV: Physical Characteristics</b>					
1. Traffic Lanes Crossing Railroad Number of Lanes 1 <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/____ Width * _____ Length * _____ <input type="checkbox"/> 1 Timber <input checked="" type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Approximate Distance (feet) _____			7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input checked="" type="checkbox"/> 30° - 59° <input type="checkbox"/> 60° - 90°	8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Part V: Public Highway Information</b>					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input checked="" type="checkbox"/> (08) Non-Federal AID		2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input checked="" type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input checked="" type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Highway Speed Limit 30 _____ MPH <input checked="" type="checkbox"/> Posted <input type="checkbox"/> Statutory
5. Linear Referencing System (LRS Route ID) *					
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year 2009 AADT 000560		8. Estimated Percent Trucks 00 _____ %	9. Regularly Used by School Buses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Average Number per Day 0 _____		10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Submission Information - This information is used for administrative purposes and is not available on the public website.</b>					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					



# U. S. DOT CROSSING INVENTORY FORM

A-24

**DEPARTMENT OF TRANSPORTATION**  
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk \* denotes an optional field.

<b>A. Revision Date</b> (MM/DD/YYYY) 07 / 25 / 2006	<b>B. Reporting Agency</b> <input type="checkbox"/> Railroad <input type="checkbox"/> Transit <input checked="" type="checkbox"/> State <input type="checkbox"/> Other	<b>C. Reason for Update (Select only one)</b> <input checked="" type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction	<b>D. DOT Crossing Inventory Number</b> 054411F
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## Part I: Location and Classification Information

<b>1. Primary Operating Railroad</b> Boston & Maine Corporation [BM]		<b>2. State</b> NEW HAMPSHIRE		<b>3. County</b> ROCKINGHAM	
<b>4. City / Municipality</b> <input checked="" type="checkbox"/> In <input type="checkbox"/> Near PORTSMOUTH		<b>5. Street/Road Name &amp; Block Number</b> BORTHWICK AVE <small>(Street/Road Name)   * (Block Number)</small>		<b>6. Highway Type &amp; No.</b> PRIVATE	
<b>7. Do Other Railroads Operate a Separate Track at Crossing?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Specify RR _____			<b>8. Do Other Railroads Operate Over Your Track at Crossing?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Specify RR _____		
<b>9. Railroad Division or Region</b> <input type="checkbox"/> None BOSTON & MAINE		<b>10. Railroad Subdivision or District</b> <input type="checkbox"/> None VS 28 MAP 2		<b>11. Branch or Line Name</b> <input type="checkbox"/> None PORTSMOUTH BR	
<b>12. RR Milepost</b> _____   0008.11   _____ <small>(prefix)   (nnnn.nnn)   (suffix)</small>		<b>13. Line Segment</b> * _____			
<b>14. Nearest RR Timetable Station</b> * PORTSMOUTH		<b>15. Parent RR (if applicable)</b> <input type="checkbox"/> N/A		<b>16. Crossing Owner (if applicable)</b> <input type="checkbox"/> N/A	
<b>17. Crossing Type</b> <input type="checkbox"/> Public <input checked="" type="checkbox"/> Private		<b>18. Crossing Purpose</b> <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.		<b>19. Crossing Position</b> <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over	
<b>20. Public Access (if Private Crossing)</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>21. Type of Train</b> <input type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter <input type="checkbox"/> Transit <input type="checkbox"/> Shared Use Transit <input type="checkbox"/> Tourist/Other		<b>22. Average Passenger Train Count Per Day</b> <input type="checkbox"/> Less Than One Per Day <input type="checkbox"/> Number Per Day 0	
<b>23. Type of Land Use</b> <input type="checkbox"/> Open Space <input checked="" type="checkbox"/> Farm <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard					
<b>24. Is there an Adjacent Crossing with a Separate Number?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Provide Crossing Number _____			<b>25. Quiet Zone (FRA provided)</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established _____		
<b>26. HSR Corridor ID</b> <input type="checkbox"/> N/A		<b>27. Latitude in decimal degrees</b> (WGS84 std: nn.nnnnnnn) 43.0684010		<b>28. Longitude in decimal degrees</b> (WGS84 std: -nnn.nnnnnnn) -70.7751010	
<b>29. Lat/Long Source</b> <input type="checkbox"/> Actual <input type="checkbox"/> Estimated		<b>30.A. Railroad Use</b> * _____			
<b>30.B. Railroad Use</b> *		<b>30.C. Railroad Use</b> *			
<b>30.D. Railroad Use</b> *		<b>30.E. Railroad Use</b> *			
<b>31.A. State Use</b> * PORTSMOUTH BRANCH			<b>31.B. State Use</b> *		
<b>31.C. State Use</b> *			<b>31.D. State Use</b> *		
<b>32.A. Narrative (Railroad Use)</b> *			<b>32.B. Narrative (State Use)</b> *		
<b>33. Emergency Notification Telephone No. (posted)</b>		<b>34. Railroad Contact (Telephone No.)</b>		<b>35. State Contact (Telephone No.)</b> 603-271-7145	

## Part II: Railroad Information

<b>1. Estimated Number of Daily Train Movements</b>				
<b>1.A. Total Day Thru Trains (6 AM to 6 PM)</b> 0	<b>1.B. Total Night Thru Trains (6 PM to 6 AM)</b> 0	<b>1.C. Total Switching Trains</b> 0	<b>1.D. Total Transit Trains</b>	<b>1.E. Check if Less Than One Movement Per Day</b> <input type="checkbox"/> How many trains per week? _____
<b>2. Year of Train Count Data (YYYY)</b>		<b>3. Speed of Train at Crossing</b> 3.A. Maximum Timetable Speed (mph) 0 3.B. Typical Speed Range Over Crossing (mph) From 0 to 0		
<b>4. Type and Count of Tracks</b> Main 0 Siding _____ Yard _____ Transit _____ Industry _____				
<b>5. Train Detection (Main Track only)</b> <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input type="checkbox"/> DC <input type="checkbox"/> Other <input checked="" type="checkbox"/> None				
<b>6. Is Track Signaled?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>7.A. Event Recorder</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>7.B. Remote Health Monitoring</b> <input type="checkbox"/> Yes <input type="checkbox"/> No

# U. S. DOT CROSSING INVENTORY FORM

A-25

A. Revision Date (MM/DD/YYYY) 07/25/2006		PAGE 2		D. Crossing Inventory Number (7 char.) 054411F	
Part III: Highway or Pathway Traffic Control Device Information					
1. Are there Signs or Signals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 0		2.B. STOP Signs (R1-1) (count) 0	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input type="checkbox"/> W10-1 _____ <input type="checkbox"/> W10-3 _____ <input type="checkbox"/> W10-11 _____ <input type="checkbox"/> W10-2 _____ <input type="checkbox"/> W10-4 _____ <input type="checkbox"/> W10-12 _____	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count _____) <input checked="" type="checkbox"/> No	2.F. Pavement Markings <input type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input checked="" type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None	2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No	2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.J. Other MUTCD Signs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2.L. LED Enhanced Signs (List types)	
3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)					
3.A. Gate Arms (count) Roadway 0 Pedestrian _____	3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates <input type="checkbox"/> 4 Quad	3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane 0 <input type="checkbox"/> Incandescent Not Over Traffic Lane 0 <input type="checkbox"/> LED		3.D. Mast Mounted Flashing Lights (count of masts) 0 <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included	3.E. Total Count of Flashing Light Pairs 0
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) _____/_____/_____ <input type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/_____ <input type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3.I. Bells (count) 0
3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None				3.K. Other Flashing Lights or Warning Devices Count 0 Specify type _____	
4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input type="checkbox"/> No	4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs	4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____	6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None	
Part IV: Physical Characteristics					
1. Traffic Lanes Crossing Railroad <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic Number of Lanes _____ <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input type="checkbox"/> Yes <input type="checkbox"/> No	3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input type="checkbox"/> Yes <input type="checkbox"/> No	
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/_____ <input type="checkbox"/> 1 Timber <input type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Approximate Distance (feet) _____		7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input type="checkbox"/> Yes <input type="checkbox"/> No	
Part V: Public Highway Information					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input type="checkbox"/> (08) Non-Federal Aid		2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input type="checkbox"/> No	4. Highway Speed Limit _____ MPH <input type="checkbox"/> Posted <input type="checkbox"/> Statutory
5. Linear Referencing System (LRS Route ID) *					
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year 1970 AADT _____		8. Estimated Percent Trucks _____ %	9. Regularly Used by School Buses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Average Number per Day 0		10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No
Submission Information - This information is used for administrative purposes and is not available on the public website.					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					

# U. S. DOT CROSSING INVENTORY FORM

A-26

**DEPARTMENT OF TRANSPORTATION**  
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk \* denotes an optional field.

<b>A. Revision Date</b> (MM/DD/YYYY) 09 / 16 / 2010	<b>B. Reporting Agency</b> <input type="checkbox"/> Railroad <input type="checkbox"/> Transit <input checked="" type="checkbox"/> State <input type="checkbox"/> Other	<b>C. Reason for Update (Select only one)</b> <input checked="" type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction	<b>D. DOT Crossing Inventory Number</b> 054415H
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## Part I: Location and Classification Information

<b>1. Primary Operating Railroad</b> Boston & Maine Corporation [BM]		<b>2. State</b> NEW HAMPSHIRE		<b>3. County</b> ROCKINGHAM	
<b>4. City / Municipality</b> <input checked="" type="checkbox"/> In <input type="checkbox"/> Near GREENLAND		<b>5. Street/Road Name &amp; Block Number</b> PORTSMOUTH AV (Street/Road Name)   * (Block Number)		<b>6. Highway Type &amp; No.</b> N-050	
<b>7. Do Other Railroads Operate a Separate Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR			<b>8. Do Other Railroads Operate Over Your Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR		
<b>9. Railroad Division or Region</b> <input type="checkbox"/> None BOSTON & MAINE		<b>10. Railroad Subdivision or District</b> <input type="checkbox"/> None VS 28 MAP 4		<b>11. Branch or Line Name</b> <input type="checkbox"/> None PORTSMOUTH BR	
<b>12. RR Milepost</b> 0006.57 (prefix)   (nnnn.nnn)   (suffix)		<b>13. Line Segment</b> *		<b>14. Nearest RR Timetable Station</b> * GREENLAND	
<b>15. Parent RR (if applicable)</b> <input type="checkbox"/> N/A		<b>16. Crossing Owner (if applicable)</b> <input type="checkbox"/> N/A		<b>17. Crossing Type</b> <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	
<b>18. Crossing Purpose</b> <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.		<b>19. Crossing Position</b> <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over		<b>20. Public Access (if Private Crossing)</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>21. Type of Train</b> <input type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter		<b>22. Average Passenger Train Count Per Day</b> <input type="checkbox"/> Less Than One Per Day <input type="checkbox"/> Number Per Day 0		<b>23. Type of Land Use</b> <input type="checkbox"/> Open Space <input type="checkbox"/> Farm <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard	
<b>24. Is there an Adjacent Crossing with a Separate Number?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Provide Crossing Number			<b>25. Quiet Zone (FRA provided)</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established		
<b>26. HSR Corridor ID</b> <input type="checkbox"/> N/A		<b>27. Latitude in decimal degrees</b> (WGS84 std: nn.nnnnnnn) 43.0443165		<b>28. Longitude in decimal degrees</b> (WGS84 std: -nnn.nnnnnnn) -70.8237312	
<b>29. Lat/Long Source</b> <input checked="" type="checkbox"/> Actual <input type="checkbox"/> Estimated		<b>30.A. Railroad Use *</b>		<b>31.A. State Use *</b> AADT ESTIMATED	
<b>30.B. Railroad Use *</b>		<b>30.C. Railroad Use *</b>		<b>30.D. Railroad Use *</b>	
<b>31.B. State Use *</b>		<b>31.C. State Use *</b>		<b>31.D. State Use *</b>	
<b>32.A. Narrative (Railroad Use) *</b> VERIFIED			<b>32.B. Narrative (State Use) *</b> VERIFIED		
<b>33. Emergency Notification Telephone No. (posted)</b>		<b>34. Railroad Contact (Telephone No.)</b>		<b>35. State Contact (Telephone No.)</b> 603-271-2468	

## Part II: Railroad Information

<b>1. Estimated Number of Daily Train Movements</b>				
<b>1.A. Total Day Thru Trains (6 AM to 6 PM)</b> 0	<b>1.B. Total Night Thru Trains (6 PM to 6 AM)</b> 0	<b>1.C. Total Switching Trains</b> 4	<b>1.D. Total Transit Trains</b>	<b>1.E. Check if Less Than One Movement Per Day</b> <input type="checkbox"/> How many trains per week? _____
<b>2. Year of Train Count Data (YYYY)</b>		<b>3. Speed of Train at Crossing</b> 3.A. Maximum Timetable Speed (mph) 15 3.B. Typical Speed Range Over Crossing (mph) From 5 to 15		
<b>4. Type and Count of Tracks</b> Main 1 Siding _____ Yard _____ Transit _____ Industry _____				
<b>5. Train Detection (Main Track only)</b> <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input checked="" type="checkbox"/> DC <input type="checkbox"/> Other <input type="checkbox"/> None				
<b>6. Is Track Signaled?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>7.A. Event Recorder</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>7.B. Remote Health Monitoring</b> <input type="checkbox"/> Yes <input type="checkbox"/> No

# U. S. DOT CROSSING INVENTORY FORM

A-27

A. Revision Date (MM/DD/YYYY) 09/16/2010		PAGE 2		D. Crossing Inventory Number (7 char.) 054415H	
Part III: Highway or Pathway Traffic Control Device Information					
1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 3		2.B. STOP Signs (R1-1) (count) 0	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input checked="" type="checkbox"/> W10-1 _____ <input type="checkbox"/> W10-3 _____ <input type="checkbox"/> W10-11 _____ <input type="checkbox"/> W10-2 _____ <input type="checkbox"/> W10-4 _____ <input type="checkbox"/> W10-12 _____	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count _____) <input checked="" type="checkbox"/> No		2.F. Pavement Markings <input checked="" type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None	2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No
2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2.J. Other MUTCD Signs <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Specify Type _____ Count <u>2</u> Specify Type _____ Count <u>0</u> Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No	2.L. LED Enhanced Signs (List types)
3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)					
3.A. Gate Arms (count) Roadway <u>0</u> Pedestrian _____	3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates	3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane <u>1</u> <input type="checkbox"/> Incandescent Not Over Traffic Lane <u>0</u> <input type="checkbox"/> LED		3.D. Mast Mounted Flashing Lights (count of masts) <u>2</u> <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included	3.E. Total Count of Flashing Light Pairs  7
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) _____/_____/_____ <input type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/_____ <input type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3.I. Bells (count)  1
3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None				3.K. Other Flashing Lights or Warning Devices Count <u>0</u> Specify type _____	
4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs	4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____	6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None	
Part IV: Physical Characteristics					
1. Traffic Lanes Crossing Railroad Number of Lanes <u>2</u> <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/_____ <input type="checkbox"/> 1 Timber <input checked="" type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Approximate Distance (feet) _____			7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input checked="" type="checkbox"/> 60° - 90°	8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Part V: Public Highway Information					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input checked="" type="checkbox"/> (03) Federal AID, Not NHS <input type="checkbox"/> (08) Non-Federal Aid		2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input checked="" type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input checked="" type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4. Highway Speed Limit <u>30</u> MPH <input checked="" type="checkbox"/> Posted <input type="checkbox"/> Statutory
5. Linear Referencing System (LRS Route ID) *					
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year <u>2009</u> AADT <u>000560</u>		8. Estimated Percent Trucks <u>03</u> %	9. Regularly Used by School Buses? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Average Number per Day <u>5</u>		10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No
Submission Information - This information is used for administrative purposes and is not available on the public website.					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					

# U. S. DOT CROSSING INVENTORY FORM

A-28

**DEPARTMENT OF TRANSPORTATION**  
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk \* denotes an optional field.

<b>A. Revision Date</b> (MM/DD/YYYY) 09 / 16 / 2010	<b>B. Reporting Agency</b> <input type="checkbox"/> Railroad <input type="checkbox"/> Transit <input checked="" type="checkbox"/> State <input type="checkbox"/> Other	<b>C. Reason for Update (Select only one)</b> <input checked="" type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction	<b>D. DOT Crossing Inventory Number</b> 054416P
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## Part I: Location and Classification Information

<b>1. Primary Operating Railroad</b> Boston & Maine Corporation [BM]		<b>2. State</b> NEW HAMPSHIRE		<b>3. County</b> ROCKINGHAM	
<b>4. City / Municipality</b> <input checked="" type="checkbox"/> In <input type="checkbox"/> Near GREENLAND		<b>5. Street/Road Name &amp; Block Number</b> GREENLAND RD (Street/Road Name)   * (Block Number)		<b>6. Highway Type &amp; No.</b> ST-033	
<b>7. Do Other Railroads Operate a Separate Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR			<b>8. Do Other Railroads Operate Over Your Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR		
<b>9. Railroad Division or Region</b> <input type="checkbox"/> None BOSTON & MAINE		<b>10. Railroad Subdivision or District</b> <input type="checkbox"/> None VS 28 MAP 5		<b>11. Branch or Line Name</b> <input type="checkbox"/> None PORTSMOUTH BR	
<b>12. RR Milepost</b> 0006.12 (prefix)   (nnnn.nnn)   (suffix)		<b>13. Line Segment</b> *		<b>14. Nearest RR Timetable Station</b> * GREENLAND	
<b>15. Parent RR (if applicable)</b> <input type="checkbox"/> N/A		<b>16. Crossing Owner (if applicable)</b> <input type="checkbox"/> N/A		<b>17. Crossing Type</b> <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	
<b>18. Crossing Purpose</b> <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.		<b>19. Crossing Position</b> <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over		<b>20. Public Access (if Private Crossing)</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>21. Type of Train</b> <input type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter		<input type="checkbox"/> Transit <input type="checkbox"/> Shared Use Transit <input type="checkbox"/> Tourist/Other		<b>22. Average Passenger Train Count Per Day</b> <input type="checkbox"/> Less Than One Per Day <input type="checkbox"/> Number Per Day 0	
<b>23. Type of Land Use</b> <input type="checkbox"/> Open Space <input type="checkbox"/> Farm <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard					
<b>24. Is there an Adjacent Crossing with a Separate Number?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Provide Crossing Number			<b>25. Quiet Zone (FRA provided)</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established		
<b>26. HSR Corridor ID</b> <input type="checkbox"/> N/A		<b>27. Latitude in decimal degrees</b> (WGS84 std: nn.nnnnnnn) 43.0478689		<b>28. Longitude in decimal degrees</b> (WGS84 std: -nnn.nnnnnnn) -70.8167136	
<b>29. Lat/Long Source</b> <input checked="" type="checkbox"/> Actual <input type="checkbox"/> Estimated		<b>30.A. Railroad Use *</b>			
<b>30.B. Railroad Use *</b>		<b>31.A. State Use *</b>			
<b>30.C. Railroad Use *</b>		<b>31.B. State Use *</b>			
<b>30.D. Railroad Use *</b>		<b>31.C. State Use *</b>			
<b>30.E. Railroad Use *</b>		<b>31.D. State Use *</b>			
<b>32.A. Narrative (Railroad Use) *</b> VERIFIED			<b>32.B. Narrative (State Use) *</b> VERIFIED		
<b>33. Emergency Notification Telephone No. (posted)</b>		<b>34. Railroad Contact (Telephone No.)</b>		<b>35. State Contact (Telephone No.)</b> 603-271-2468	

## Part II: Railroad Information

<b>1. Estimated Number of Daily Train Movements</b>				
<b>1.A. Total Day Thru Trains (6 AM to 6 PM)</b> 0	<b>1.B. Total Night Thru Trains (6 PM to 6 AM)</b> 0	<b>1.C. Total Switching Trains</b> 4	<b>1.D. Total Transit Trains</b>	<b>1.E. Check if Less Than One Movement Per Day</b> <input type="checkbox"/> How many trains per week? _____
<b>2. Year of Train Count Data (YYYY)</b>		<b>3. Speed of Train at Crossing</b> 3.A. Maximum Timetable Speed (mph) 15 3.B. Typical Speed Range Over Crossing (mph) From 5 to 15		
<b>4. Type and Count of Tracks</b> Main 1 Siding _____ Yard _____ Transit _____ Industry _____				
<b>5. Train Detection (Main Track only)</b> <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input checked="" type="checkbox"/> DC <input type="checkbox"/> Other <input type="checkbox"/> None				
<b>6. Is Track Signaled?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>7.A. Event Recorder</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>7.B. Remote Health Monitoring</b> <input type="checkbox"/> Yes <input type="checkbox"/> No

# U. S. DOT CROSSING INVENTORY FORM

A-29

A. Revision Date (MM/DD/YYYY) 09/16/2010		PAGE 2		D. Crossing Inventory Number (7 char.) 054416P	
Part III: Highway or Pathway Traffic Control Device Information					
1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 4		2.B. STOP Signs (R1-1) (count) 0	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input type="checkbox"/> W10-1 _____ <input type="checkbox"/> W10-3 _____ <input type="checkbox"/> W10-11 _____ <input type="checkbox"/> W10-2 _____ <input type="checkbox"/> W10-4 _____ <input type="checkbox"/> W10-12 _____	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count _____) <input checked="" type="checkbox"/> No	2.F. Pavement Markings <input type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input checked="" type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None	2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No	2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.J. Other MUTCD Signs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No		2.L. LED Enhanced Signs (List types)	
3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)					
3.A. Gate Arms (count) Roadway <u>0</u> Pedestrian _____	3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates <input type="checkbox"/> 4 Quad	3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane <u>2</u> <input type="checkbox"/> Incandescent Not Over Traffic Lane <u>0</u> <input type="checkbox"/> LED		3.D. Mast Mounted Flashing Lights (count of masts) <u>2</u> <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included	3.E. Total Count of Flashing Light Pairs 0
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) _____/_____/_____ <input type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/_____ <input type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3.I. Bells (count) 2
3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None				3.K. Other Flashing Lights or Warning Devices Count <u>0</u> Specify type _____	
4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs	4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____	6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None	
Part IV: Physical Characteristics					
1. Traffic Lanes Crossing Railroad <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic Number of Lanes <u>6</u> <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/_____ <input type="checkbox"/> 1 Timber <input checked="" type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Approximate Distance (feet) _____			7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input checked="" type="checkbox"/> 30° - 59° <input type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Part V: Public Highway Information					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input checked="" type="checkbox"/> (08) Non-Federal Aid		2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input checked="" type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input checked="" type="checkbox"/> (4) Minor Arterial <input type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		4. Highway Speed Limit <u>50</u> MPH <input checked="" type="checkbox"/> Posted <input type="checkbox"/> Statutory		5. Linear Referencing System (LRS Route ID) *	
		6. LRS Milepost *			
7. Annual Average Daily Traffic (AADT) Year <u>2009</u> AADT <u>025225</u>		8. Estimated Percent Trucks <u>01</u> %	9. Regularly Used by School Buses? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Average Number per Day <u>3</u>		10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No
Submission Information - This information is used for administrative purposes and is not available on the public website.					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					

# U. S. DOT CROSSING INVENTORY FORM

A-30

**DEPARTMENT OF TRANSPORTATION**  
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk \* denotes an optional field.

<b>A. Revision Date</b> (MM/DD/YYYY) 07 / 31 / 2006	<b>B. Reporting Agency</b> <input type="checkbox"/> Railroad <input type="checkbox"/> Transit <input checked="" type="checkbox"/> State <input type="checkbox"/> Other	<b>C. Reason for Update (Select only one)</b> <input checked="" type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction	<b>D. DOT Crossing Inventory Number</b> 054417W
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## Part I: Location and Classification Information

<b>1. Primary Operating Railroad</b> Boston & Maine Corporation [BM]		<b>2. State</b> NEW HAMPSHIRE		<b>3. County</b> ROCKINGHAM	
<b>4. City / Municipality</b> <input checked="" type="checkbox"/> In <input type="checkbox"/> Near GREENLAND		<b>5. Street/Road Name &amp; Block Number</b> TIDE MILL RD (Street/Road Name)   * (Block Number)		<b>6. Highway Type &amp; No.</b> TOWN	
<b>7. Do Other Railroads Operate a Separate Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR			<b>8. Do Other Railroads Operate Over Your Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR		
<b>9. Railroad Division or Region</b> <input type="checkbox"/> None BOSTON & MAINE		<b>10. Railroad Subdivision or District</b> <input type="checkbox"/> None VS 28 MAP 6		<b>11. Branch or Line Name</b> <input type="checkbox"/> None PORTSMOUTH BR	
<b>12. RR Milepost</b> 0005.32 (prefix)   (nnnn.nnn)   (suffix)		<b>13. Line Segment</b> *		<b>14. Nearest RR Timetable Station</b> * GREENLAND	
<b>15. Parent RR (if applicable)</b> <input type="checkbox"/> N/A		<b>16. Crossing Owner (if applicable)</b> <input type="checkbox"/> N/A		<b>17. Crossing Type</b> <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	
<b>18. Crossing Purpose</b> <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.		<b>19. Crossing Position</b> <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over		<b>20. Public Access (if Private Crossing)</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>21. Type of Train</b> <input type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter		<b>22. Average Passenger Train Count Per Day</b> <input type="checkbox"/> Less Than One Per Day <input type="checkbox"/> Number Per Day 0		<b>23. Type of Land Use</b> <input checked="" type="checkbox"/> Open Space <input type="checkbox"/> Farm <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard	
<b>24. Is there an Adjacent Crossing with a Separate Number?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Provide Crossing Number			<b>25. Quiet Zone (FRA provided)</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established		
<b>26. HSR Corridor ID</b> <input type="checkbox"/> N/A		<b>27. Latitude in decimal degrees</b> (WGS84 std: nn.nnnnnnn) 43.0410730		<b>28. Longitude in decimal degrees</b> (WGS84 std: -nnn.nnnnnnn) -70.8407290	
<b>29. Lat/Long Source</b> <input type="checkbox"/> Actual <input type="checkbox"/> Estimated		<b>30.A. Railroad Use *</b>		<b>31.A. State Use *</b> PORTSMOUTH BRANCH	
<b>30.B. Railroad Use *</b>		<b>30.C. Railroad Use *</b>		<b>30.D. Railroad Use *</b>	
<b>31.B. State Use *</b>		<b>31.C. State Use *</b>		<b>31.D. State Use *</b>	
<b>32.A. Narrative (Railroad Use) *</b>			<b>32.B. Narrative (State Use) *</b>		
<b>33. Emergency Notification Telephone No. (posted)</b>		<b>34. Railroad Contact (Telephone No.)</b>		<b>35. State Contact (Telephone No.)</b> 603-271-7145	

## Part II: Railroad Information

<b>1. Estimated Number of Daily Train Movements</b>				
<b>1.A. Total Day Thru Trains (6 AM to 6 PM)</b> 0	<b>1.B. Total Night Thru Trains (6 PM to 6 AM)</b> 0	<b>1.C. Total Switching Trains</b> 4	<b>1.D. Total Transit Trains</b>	<b>1.E. Check if Less Than One Movement Per Day</b> <input type="checkbox"/> How many trains per week? _____
<b>2. Year of Train Count Data (YYYY)</b>		<b>3. Speed of Train at Crossing</b> 3.A. Maximum Timetable Speed (mph) 15 3.B. Typical Speed Range Over Crossing (mph) From 5 to 15		
<b>4. Type and Count of Tracks</b> Main 1 Siding _____ Yard _____ Transit _____ Industry _____				
<b>5. Train Detection (Main Track only)</b> <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input checked="" type="checkbox"/> DC <input type="checkbox"/> Other <input type="checkbox"/> None				
<b>6. Is Track Signaled?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>7.A. Event Recorder</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>7.B. Remote Health Monitoring</b> <input type="checkbox"/> Yes <input type="checkbox"/> No

# U. S. DOT CROSSING INVENTORY FORM

A-31

A. Revision Date (MM/DD/YYYY) 07/31/2006		PAGE 2		D. Crossing Inventory Number (7 char.) 054417W	
<b>Part III: Highway or Pathway Traffic Control Device Information</b>					
1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 2		2.B. STOP Signs (R1-1) (count) 0	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input type="checkbox"/> W10-1 <input type="checkbox"/> W10-3 <input type="checkbox"/> W10-11 <input type="checkbox"/> W10-2 <input type="checkbox"/> W10-4 <input type="checkbox"/> W10-12	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count _____) <input checked="" type="checkbox"/> No		2.F. Pavement Markings <input type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input checked="" type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None	2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No
2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2.J. Other MUTCD Signs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No	2.L. LED Enhanced Signs (List types)
<b>3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)</b>					
3.A. Gate Arms (count) Roadway 0 Pedestrian _____	3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates <input type="checkbox"/> 4 Quad	3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane 0 <input type="checkbox"/> Incandescent Not Over Traffic Lane 0 <input type="checkbox"/> LED		3.D. Mast Mounted Flashing Lights (count of masts) 0 <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included	3.E. Total Count of Flashing Light Pairs 0
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) ____/____/____ <input type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/____ <input type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3.I. Bells (count) 0
3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None				3.K. Other Flashing Lights or Warning Devices Count 0 Specify type _____	
4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs	4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____	6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None	
<b>Part IV: Physical Characteristics</b>					
1. Traffic Lanes Crossing Railroad Number of Lanes 1 <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/____ Width * _____ Length * _____ <input type="checkbox"/> 1 Timber <input checked="" type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Approximate Distance (feet) _____			7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input checked="" type="checkbox"/> 60° - 90°	8. Is Commercial Power Available? * <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>Part V: Public Highway Information</b>					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input checked="" type="checkbox"/> (08) Non-Federal AID		2. Functional Classification of Road at Crossing <input checked="" type="checkbox"/> (0) Rural <input type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input checked="" type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Highway Speed Limit _____ MPH <input type="checkbox"/> Posted <input type="checkbox"/> Statutory
5. Linear Referencing System (LRS Route ID) *					
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year 1987 AADT 000025		8. Estimated Percent Trucks 00 %	9. Regularly Used by School Buses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Average Number per Day 0		10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Submission Information - This information is used for administrative purposes and is not available on the public website.</b>					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					



# U. S. DOT CROSSING INVENTORY FORM

A-32

**DEPARTMENT OF TRANSPORTATION**  
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk \* denotes an optional field.

<b>A. Revision Date</b> (MM/DD/YYYY) 09 / 16 / 2010	<b>B. Reporting Agency</b> <input type="checkbox"/> Railroad <input type="checkbox"/> Transit <input checked="" type="checkbox"/> State <input type="checkbox"/> Other	<b>C. Reason for Update (Select only one)</b> <input checked="" type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction	<b>D. DOT Crossing Inventory Number</b> 054418D
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## Part I: Location and Classification Information

<b>1. Primary Operating Railroad</b> Boston & Maine Corporation [BM]		<b>2. State</b> NEW HAMPSHIRE		<b>3. County</b> ROCKINGHAM	
<b>4. City / Municipality</b> <input checked="" type="checkbox"/> In <input type="checkbox"/> Near GREENLAND		<b>5. Street/Road Name &amp; Block Number</b> BAYSIDE RD (Street/Road Name)   * (Block Number)		<b>6. Highway Type &amp; No.</b> LR-052	
<b>7. Do Other Railroads Operate a Separate Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR			<b>8. Do Other Railroads Operate Over Your Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR		
<b>9. Railroad Division or Region</b> <input type="checkbox"/> None BOSTON & MAINE		<b>10. Railroad Subdivision or District</b> <input type="checkbox"/> None VS 28 MAP 7		<b>11. Branch or Line Name</b> <input type="checkbox"/> None PORTSMOUTH	
<b>12. RR Milepost</b> 0004.11 (prefix)   (nnnn.nnn)   (suffix)		<b>13. Line Segment</b> *		<b>14. Nearest RR Timetable Station</b> * GREENLAND	
<b>15. Parent RR (if applicable)</b> <input type="checkbox"/> N/A		<b>16. Crossing Owner (if applicable)</b> <input type="checkbox"/> N/A		<b>17. Crossing Type</b> <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	
<b>18. Crossing Purpose</b> <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.		<b>19. Crossing Position</b> <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over		<b>20. Public Access (if Private Crossing)</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>21. Type of Train</b> <input type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter		<input type="checkbox"/> Transit <input type="checkbox"/> Shared Use Transit <input type="checkbox"/> Tourist/Other		<b>22. Average Passenger Train Count Per Day</b> <input type="checkbox"/> Less Than One Per Day <input type="checkbox"/> Number Per Day 0	
<b>23. Type of Land Use</b> <input type="checkbox"/> Open Space <input type="checkbox"/> Farm <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard					
<b>24. Is there an Adjacent Crossing with a Separate Number?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Provide Crossing Number			<b>25. Quiet Zone (FRA provided)</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established		
<b>26. HSR Corridor ID</b> <input type="checkbox"/> N/A		<b>27. Latitude in decimal degrees</b> (WGS84 std: nn.nnnnnnn) 43.0475973		<b>28. Longitude in decimal degrees</b> (WGS84 std: -nnn.nnnnnnn) -70.8603474	
<b>29. Lat/Long Source</b> <input checked="" type="checkbox"/> Actual <input type="checkbox"/> Estimated		<b>30.A. Railroad Use *</b>			
<b>30.B. Railroad Use *</b>		<b>31.A. State Use *</b> AADT ESTIMATED			
<b>30.C. Railroad Use *</b>		<b>31.B. State Use *</b>			
<b>30.D. Railroad Use *</b>		<b>31.C. State Use *</b>			
<b>30.E. Railroad Use *</b>		<b>31.D. State Use *</b>			
<b>32.A. Narrative (Railroad Use) *</b> VERIFIED			<b>32.B. Narrative (State Use) *</b> VERIFIED		
<b>33. Emergency Notification Telephone No. (posted)</b>		<b>34. Railroad Contact (Telephone No.)</b>		<b>35. State Contact (Telephone No.)</b> 603-271-2468	

## Part II: Railroad Information

<b>1. Estimated Number of Daily Train Movements</b>				
<b>1.A. Total Day Thru Trains (6 AM to 6 PM)</b> 0	<b>1.B. Total Night Thru Trains (6 PM to 6 AM)</b> 0	<b>1.C. Total Switching Trains</b> 4	<b>1.D. Total Transit Trains</b>	<b>1.E. Check if Less Than One Movement Per Day</b> <input type="checkbox"/> How many trains per week? _____
<b>2. Year of Train Count Data (YYYY)</b>		<b>3. Speed of Train at Crossing</b> 3.A. Maximum Timetable Speed (mph) 15 3.B. Typical Speed Range Over Crossing (mph) From 5 to 15		
<b>4. Type and Count of Tracks</b> Main 1 Siding _____ Yard _____ Transit _____ Industry _____				
<b>5. Train Detection (Main Track only)</b> <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input checked="" type="checkbox"/> DC <input type="checkbox"/> Other <input type="checkbox"/> None				
<b>6. Is Track Signaled?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>7.A. Event Recorder</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>7.B. Remote Health Monitoring</b> <input type="checkbox"/> Yes <input type="checkbox"/> No

# U. S. DOT CROSSING INVENTORY FORM

A-33

A. Revision Date (MM/DD/YYYY) 09/16/2010		PAGE 2		D. Crossing Inventory Number (7 char.) 054418D	
<b>Part III: Highway or Pathway Traffic Control Device Information</b>					
1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 1		2.B. STOP Signs (R1-1) (count) 2	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input checked="" type="checkbox"/> W10-1 _____ <input type="checkbox"/> W10-3 _____ <input type="checkbox"/> W10-11 _____ <input type="checkbox"/> W10-2 _____ <input type="checkbox"/> W10-4 _____ <input type="checkbox"/> W10-12 _____	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count _____) <input checked="" type="checkbox"/> No		2.F. Pavement Markings <input checked="" type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None	2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No
2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2.J. Other MUTCD Signs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No	2.L. LED Enhanced Signs (List types)
<b>3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)</b>					
3.A. Gate Arms (count) Roadway <u>0</u> Pedestrian _____	3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates <input type="checkbox"/> 4 Quad		3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane <u>0</u> <input type="checkbox"/> Incandescent Not Over Traffic Lane <u>0</u> <input type="checkbox"/> LED		3.D. Mast Mounted Flashing Lights (count of masts) <u>0</u> <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included
3.E. Total Count of Flashing Light Pairs <u>0</u>		3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) ____/____/____ <input type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/____ <input type="checkbox"/> No	3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3.I. Bells (count) <u>0</u>		3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None			3.K. Other Flashing Lights or Warning Devices Count <u>0</u> Specify type _____
4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs	4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____	6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None	
<b>Part IV: Physical Characteristics</b>					
1. Traffic Lanes Crossing Railroad <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic Number of Lanes <u>2</u> <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/____ Width * _____ Length * _____ <input type="checkbox"/> 1 Timber <input checked="" type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Approximate Distance (feet) _____			7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input checked="" type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Part V: Public Highway Information</b>					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input checked="" type="checkbox"/> (08) Non-Federal AID		2. Functional Classification of Road at Crossing <input checked="" type="checkbox"/> (0) Rural <input type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input checked="" type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Highway Speed Limit <u>30</u> MPH <input checked="" type="checkbox"/> Posted <input type="checkbox"/> Statutory
5. Linear Referencing System (LRS Route ID) *					
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year <u>2009</u> AADT <u>000560</u>		8. Estimated Percent Trucks <u>00</u> %	9. Regularly Used by School Buses? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Average Number per Day <u>4</u>		10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Submission Information - This information is used for administrative purposes and is not available on the public website.</b>					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					

U. S. DOT CROSSING INVENTORY FORM

A-34

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk \* denotes an optional field.

A. Revision Date (MM/DD/YYYY) 09/20/2010
B. Reporting Agency [X] State
C. Reason for Update [X] Change in Data, [ ] New, [ ] Closed, [ ] No Train Traffic, [ ] Quiet Zone Update, [ ] Re-Open, [ ] Date Change Only, [ ] Change in Primary Operating RR, [ ] Admin. Correction
D. DOT Crossing Inventory Number 054421L

Part I: Location and Classification Information

1. Primary Operating Railroad Boston & Maine Corporation [BM]
2. State NEW HAMPSHIRE
3. County ROCKINGHAM
4. City / Municipality [X] In GREENLAND
5. Street/Road Name & Block Number GREAT BAY RD
6. Highway Type & No. N-052
7. Do Other Railroads Operate a Separate Track at Crossing? [ ] Yes [X] No
8. Do Other Railroads Operate Over Your Track at Crossing? [ ] Yes [X] No

9. Railroad Division or Region BOSTON & MAINE
10. Railroad Subdivision or District VS 28 MAP 7
11. Branch or Line Name PORTSMOUTH BR
12. RR Milepost 0003.60
13. Line Segment \*
14. Nearest RR Timetable Station \* GREENLAND
15. Parent RR (if applicable) [ ] N/A
16. Crossing Owner (if applicable) [ ] N/A

17. Crossing Type [X] Public
18. Crossing Purpose [X] Highway
19. Crossing Position [X] At Grade
20. Public Access (if Private Crossing) [ ] Yes [ ] No
21. Type of Train [ ] Freight, [ ] Intercity Passenger, [ ] Commuter, [ ] Transit, [ ] Shared Use Transit, [ ] Tourist/Other
22. Average Passenger Train Count Per Day [ ] Less Than One Per Day, [ ] Number Per Day 0

23. Type of Land Use [X] Residential
24. Is there an Adjacent Crossing with a Separate Number? [ ] Yes [X] No
25. Quiet Zone (FRA provided) [X] No, [ ] 24 Hr, [ ] Partial, [ ] Chicago Excused, Date Established

26. HSR Corridor ID [ ] N/A
27. Latitude in decimal degrees (WGS84 std: nn.nnnnnnn) 43.0516685
28. Longitude in decimal degrees (WGS84 std: -nnn.nnnnnnn) -70.8675396
29. Lat/Long Source [X] Actual [ ] Estimated

30.A. Railroad Use \*
31.A. State Use \* AADT ESTIMATED
30.B. Railroad Use \*
31.B. State Use \*
30.C. Railroad Use \*
31.C. State Use \*
30.D. Railroad Use \*
31.D. State Use \*
32.A. Narrative (Railroad Use) \* VERIFIED
32.B. Narrative (State Use) \* VERIFIED

33. Emergency Notification Telephone No. (posted)
34. Railroad Contact (Telephone No.)
35. State Contact (Telephone No.) 603-271-2468

Part II: Railroad Information

1. Estimated Number of Daily Train Movements
1.A. Total Day Thru Trains (6 AM to 6 PM) 0
1.B. Total Night Thru Trains (6 PM to 6 AM) 0
1.C. Total Switching Trains 4
1.D. Total Transit Trains
1.E. Check if Less Than One Movement Per Day [ ]
How many trains per week?
2. Year of Train Count Data (YYYY)
3. Speed of Train at Crossing
3.A. Maximum Timetable Speed (mph) 15
3.B. Typical Speed Range Over Crossing (mph) From 5 to 15
4. Type and Count of Tracks
Main 1, Siding, Yard, Transit, Industry
5. Train Detection (Main Track only) [ ] Constant Warning Time, [ ] Motion Detection, [ ] AFO, [ ] PTC, [X] DC, [ ] Other, [ ] None
6. Is Track Signaled? [ ] Yes [X] No
7.A. Event Recorder [ ] Yes [ ] No
7.B. Remote Health Monitoring [ ] Yes [ ] No

# U. S. DOT CROSSING INVENTORY FORM

A-35

A. Revision Date (MM/DD/YYYY) 09/20/2010		PAGE 2		D. Crossing Inventory Number (7 char.) 054421L	
Part III: Highway or Pathway Traffic Control Device Information					
1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 2		2.B. STOP Signs (R1-1) (count) 2	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input checked="" type="checkbox"/> W10-1 _____ <input type="checkbox"/> W10-3 _____ <input type="checkbox"/> W10-11 _____ <input type="checkbox"/> W10-2 _____ <input type="checkbox"/> W10-4 _____ <input type="checkbox"/> W10-12 _____	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count _____) <input checked="" type="checkbox"/> No	2.F. Pavement Markings <input type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input checked="" type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None	2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No	2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2.J. Other MUTCD Signs <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Specify Type _____ Count 1 Specify Type _____ Count 0 Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No		2.L. LED Enhanced Signs (List types)	
3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)					
3.A. Gate Arms (count) Roadway 0 Pedestrian _____	3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates <input type="checkbox"/> 4 Quad	3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane 0 <input type="checkbox"/> Incandescent Not Over Traffic Lane 0 <input type="checkbox"/> LED		3.D. Mast Mounted Flashing Lights (count of masts) 0 <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included	3.E. Total Count of Flashing Light Pairs 0
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) ____/____/____ <input type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/____ <input type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3.I. Bells (count) 0
3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None				3.K. Other Flashing Lights or Warning Devices Count 0 Specify type _____	
4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs	4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____	6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None	
Part IV: Physical Characteristics					
1. Traffic Lanes Crossing Railroad <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic Number of Lanes 2 <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/____ Width * _____ Length * _____ <input type="checkbox"/> 1 Timber <input checked="" type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Approximate Distance (feet) _____			7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input checked="" type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Part V: Public Highway Information					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input checked="" type="checkbox"/> (08) Non-Federal Aid		2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input checked="" type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input checked="" type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4. Highway Speed Limit 30 _____ MPH <input checked="" type="checkbox"/> Posted <input type="checkbox"/> Statutory
5. Linear Referencing System (LRS Route ID) *					
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year 2009 AADT 000560		8. Estimated Percent Trucks 01 _____ %	9. Regularly Used by School Buses? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Average Number per Day 4 _____		10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No
Submission Information - This information is used for administrative purposes and is not available on the public website.					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					

U. S. DOT CROSSING INVENTORY FORM

A-36

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk \* denotes an optional field.

A. Revision Date (MM/DD/YYYY) 09/20/2010
B. Reporting Agency [X] State
C. Reason for Update [X] Change in Data
D. DOT Crossing Inventory Number 054423A

Part I: Location and Classification Information

1. Primary Operating Railroad Boston & Maine Corporation [BM]
2. State NEW HAMPSHIRE
3. County ROCKINGHAM
4. City / Municipality [X] In GREENLAND
5. Street/Road Name & Block Number BAYRIDGE RD
6. Highway Type & No. LR-093
7. Do Other Railroads Operate a Separate Track at Crossing? [X] No
8. Do Other Railroads Operate Over Your Track at Crossing? [X] No

9. Railroad Division or Region BOSTON & MAINE
10. Railroad Subdivision or District VS 28 MAP 8
11. Branch or Line Name PORTSMOUTH BR
12. RR Milepost 0002.95
13. Line Segment \*
14. Nearest RR Timetable Station \* GREENLAND
15. Parent RR (if applicable) N/A
16. Crossing Owner (if applicable) N/A

17. Crossing Type [X] Public
18. Crossing Purpose [X] Highway
19. Crossing Position [X] At Grade
20. Public Access (if Private Crossing) [X] No
21. Type of Train [X] Freight
22. Average Passenger Train Count Per Day 0

23. Type of Land Use [X] Residential
24. Is there an Adjacent Crossing with a Separate Number? [X] No
25. Quiet Zone (FRA provided) [X] No

26. HSR Corridor ID N/A
27. Latitude in decimal degrees 43.0559991
28. Longitude in decimal degrees -70.8779901
29. Lat/Long Source [X] Actual

30.A. Railroad Use \*
31.A. State Use \* AADT ESTIMATED
30.B. Railroad Use \*
31.B. State Use \*
30.C. Railroad Use \*
31.C. State Use \*
30.D. Railroad Use \*
31.D. State Use \*
32.A. Narrative (Railroad Use) \* VERIFIED
32.B. Narrative (State Use) \* VERIFIED

33. Emergency Notification Telephone No. (posted)
34. Railroad Contact (Telephone No.)
35. State Contact (Telephone No.) 603-271-2468

Part II: Railroad Information

1. Estimated Number of Daily Train Movements
1.A. Total Day Thru Trains (6 AM to 6 PM) 2
1.B. Total Night Thru Trains (6 PM to 6 AM) 0
1.C. Total Switching Trains 0
1.D. Total Transit Trains
1.E. Check if Less Than One Movement Per Day [ ]
2. Year of Train Count Data (YYYY)
3. Speed of Train at Crossing
3.A. Maximum Timetable Speed (mph) 10
3.B. Typical Speed Range Over Crossing (mph) From 10 to 10
4. Type and Count of Tracks
Main 1 Siding Yard Transit Industry
5. Train Detection (Main Track only) [X] None
6. Is Track Signaled? [X] No
7.A. Event Recorder [ ] No
7.B. Remote Health Monitoring [ ] No

# U. S. DOT CROSSING INVENTORY FORM

A-37

A. Revision Date (MM/DD/YYYY) 09/20/2010		PAGE 2		D. Crossing Inventory Number (7 char.) 054423A	
Part III: Highway or Pathway Traffic Control Device Information					
1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 2		2.B. STOP Signs (R1-1) (count) 2	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input type="checkbox"/> W10-1 <input type="checkbox"/> W10-3 <input type="checkbox"/> W10-11 <input type="checkbox"/> W10-2 <input type="checkbox"/> W10-4 <input type="checkbox"/> W10-12	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count _____) <input checked="" type="checkbox"/> No	2.F. Pavement Markings <input checked="" type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None		2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No
2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			2.J. Other MUTCD Signs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____		
2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No			2.L. LED Enhanced Signs (List types)		
3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)					
3.A. Gate Arms (count) Roadway <u>0</u> Pedestrian _____	3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates <input type="checkbox"/> 4 Quad	3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane <u>0</u> <input type="checkbox"/> Incandescent Not Over Traffic Lane <u>0</u> <input type="checkbox"/> LED		3.D. Mast Mounted Flashing Lights (count of masts) <u>0</u> <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included	3.E. Total Count of Flashing Light Pairs <u>0</u>
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) ____/____/____ <input type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/____ <input type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3.I. Bells (count) <u>0</u>
3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None				3.K. Other Flashing Lights or Warning Devices Count <u>0</u> Specify type _____	
4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs	4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____	6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None	
Part IV: Physical Characteristics					
1. Traffic Lanes Crossing Railroad <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic Number of Lanes <u>2</u> <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/____ Width * _____ Length * _____ <input type="checkbox"/> 1 Timber <input checked="" type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Approximate Distance (feet) _____			7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input checked="" type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Part V: Public Highway Information					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input checked="" type="checkbox"/> (08) Non-Federal AID		2. Functional Classification of Road at Crossing <input checked="" type="checkbox"/> (0) Rural <input type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input checked="" type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Highway Speed Limit <u>30</u> MPH <input checked="" type="checkbox"/> Posted <input type="checkbox"/> Statutory
5. Linear Referencing System (LRS Route ID) *					
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year <u>2009</u> AADT <u>000560</u>		8. Estimated Percent Trucks <u>00</u> %	9. Regularly Used by School Buses? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Average Number per Day <u>8</u>		10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No
Submission Information - This information is used for administrative purposes and is not available on the public website.					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					

# U. S. DOT CROSSING INVENTORY FORM

A-38

**DEPARTMENT OF TRANSPORTATION**  
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk \* denotes an optional field.

<b>A. Revision Date</b> (MM/DD/YYYY) 09 / 20 / 2010	<b>B. Reporting Agency</b> <input type="checkbox"/> Railroad <input type="checkbox"/> Transit <input checked="" type="checkbox"/> State <input type="checkbox"/> Other	<b>C. Reason for Update (Select only one)</b> <input checked="" type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction	<b>D. DOT Crossing Inventory Number</b> 054424G
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## Part I: Location and Classification Information

<b>1. Primary Operating Railroad</b> Boston & Maine Corporation [BM]		<b>2. State</b> NEW HAMPSHIRE		<b>3. County</b> ROCKINGHAM	
<b>4. City / Municipality</b> <input checked="" type="checkbox"/> In <input type="checkbox"/> Near GREENLAND		<b>5. Street/Road Name &amp; Block Number</b> DEARBORN RD (Street/Road Name)   * (Block Number)		<b>6. Highway Type &amp; No.</b> LR-060	
<b>7. Do Other Railroads Operate a Separate Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR			<b>8. Do Other Railroads Operate Over Your Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR		
<b>9. Railroad Division or Region</b> <input type="checkbox"/> None BOSTON & MAINE		<b>10. Railroad Subdivision or District</b> <input type="checkbox"/> None VS 28 MAP 8		<b>11. Branch or Line Name</b> <input type="checkbox"/> None PORTSMOUTH BR	
<b>12. RR Milepost</b> 0002.81 (prefix)   (nnnn.nnn)   (suffix)		<b>13. Line Segment</b> *		<b>14. Nearest RR Timetable Station</b> * GREENLAND	
<b>15. Parent RR (if applicable)</b> <input type="checkbox"/> N/A		<b>16. Crossing Owner (if applicable)</b> <input type="checkbox"/> N/A		<b>17. Crossing Type</b> <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	
<b>18. Crossing Purpose</b> <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.		<b>19. Crossing Position</b> <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over		<b>20. Public Access (if Private Crossing)</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>21. Type of Train</b> <input type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter		<b>22. Average Passenger Train Count Per Day</b> <input type="checkbox"/> Less Than One Per Day <input type="checkbox"/> Number Per Day 0		<b>23. Type of Land Use</b> <input type="checkbox"/> Open Space <input type="checkbox"/> Farm <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard	
<b>24. Is there an Adjacent Crossing with a Separate Number?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Provide Crossing Number			<b>25. Quiet Zone (FRA provided)</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established		
<b>26. HSR Corridor ID</b> <input type="checkbox"/> N/A		<b>27. Latitude in decimal degrees</b> (WGS84 std: nn.nnnnnnn) 43.0562629		<b>28. Longitude in decimal degrees</b> (WGS84 std: -nnn.nnnnnnn) -70.8826018	
<b>29. Lat/Long Source</b> <input checked="" type="checkbox"/> Actual <input type="checkbox"/> Estimated		<b>30.A. Railroad Use *</b>		<b>31.A. State Use *</b> AADT ESTIMATED	
<b>30.B. Railroad Use *</b>		<b>30.C. Railroad Use *</b>		<b>30.D. Railroad Use *</b>	
<b>31.B. State Use *</b>		<b>31.C. State Use *</b>		<b>31.D. State Use *</b>	
<b>32.A. Narrative (Railroad Use) *</b> VERIFIED			<b>32.B. Narrative (State Use) *</b> VERIFIED		
<b>33. Emergency Notification Telephone No. (posted)</b>		<b>34. Railroad Contact (Telephone No.)</b>		<b>35. State Contact (Telephone No.)</b> 603-271-2468	

## Part II: Railroad Information

<b>1. Estimated Number of Daily Train Movements</b>				
<b>1.A. Total Day Thru Trains (6 AM to 6 PM)</b> 0	<b>1.B. Total Night Thru Trains (6 PM to 6 AM)</b> 0	<b>1.C. Total Switching Trains</b> 4	<b>1.D. Total Transit Trains</b>	<b>1.E. Check if Less Than One Movement Per Day</b> <input type="checkbox"/> How many trains per week? _____
<b>2. Year of Train Count Data (YYYY)</b>		<b>3. Speed of Train at Crossing</b> 3.A. Maximum Timetable Speed (mph) 15 3.B. Typical Speed Range Over Crossing (mph) From 5 to 15		
<b>4. Type and Count of Tracks</b> Main 1 Siding _____ Yard _____ Transit _____ Industry _____				
<b>5. Train Detection (Main Track only)</b> <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input checked="" type="checkbox"/> DC <input type="checkbox"/> Other <input type="checkbox"/> None				
<b>6. Is Track Signaled?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>7.A. Event Recorder</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>7.B. Remote Health Monitoring</b> <input type="checkbox"/> Yes <input type="checkbox"/> No

# U. S. DOT CROSSING INVENTORY FORM

A-39

A. Revision Date (MM/DD/YYYY) 09/20/2010		PAGE 2		D. Crossing Inventory Number (7 char.) 054424G	
<b>Part III: Highway or Pathway Traffic Control Device Information</b>					
1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 2		2.B. STOP Signs (R1-1) (count) 2	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input checked="" type="checkbox"/> W10-1 _____ <input type="checkbox"/> W10-3 _____ <input type="checkbox"/> W10-11 _____ <input type="checkbox"/> W10-2 _____ <input type="checkbox"/> W10-4 _____ <input type="checkbox"/> W10-12 _____	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count _____) <input checked="" type="checkbox"/> No		2.F. Pavement Markings <input checked="" type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None	2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No
2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2.J. Other MUTCD Signs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No	2.L. LED Enhanced Signs (List types)
<b>3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)</b>					
3.A. Gate Arms (count) Roadway <u>0</u> Pedestrian _____		3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates <input type="checkbox"/> 4 Quad		3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane <u>0</u> <input type="checkbox"/> Incandescent Not Over Traffic Lane <u>0</u> <input type="checkbox"/> LED	
3.D. Mast Mounted Flashing Lights (count of masts) <u>0</u> <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included		3.E. Total Count of Flashing Light Pairs <u>0</u>		3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) ____/____/____ <input type="checkbox"/> Not Required	
3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/____ <input type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		3.I. Bells (count) <u>0</u>	
3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None				3.K. Other Flashing Lights or Warning Devices Count <u>0</u> Specify type _____	
4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs	4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____	
6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None					
<b>Part IV: Physical Characteristics</b>					
1. Traffic Lanes Crossing Railroad <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic Number of Lanes <u>2</u> <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/____ Width * _____ Length * _____ <input type="checkbox"/> 1 Timber <input checked="" type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____			
6. Intersecting Roadway within 500 feet? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Approximate Distance (feet) _____		7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input checked="" type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Part V: Public Highway Information</b>					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input checked="" type="checkbox"/> (08) Non-Federal AID		2. Functional Classification of Road at Crossing <input checked="" type="checkbox"/> (0) Rural <input type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input checked="" type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4. Highway Speed Limit <u>30</u> MPH <input checked="" type="checkbox"/> Posted <input type="checkbox"/> Statutory		5. Linear Referencing System (LRS Route ID) *			
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year <u>2009</u> AADT <u>000560</u>		8. Estimated Percent Trucks <u>00</u> %	9. Regularly Used by School Buses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Average Number per Day <u>0</u>		10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Submission Information - This information is used for administrative purposes and is not available on the public website.</b>					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					



U. S. DOT CROSSING INVENTORY FORM

A-40

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk \* denotes an optional field.

Form section containing: A. Revision Date (07/25/2006), B. Reporting Agency (State), C. Reason for Update (Change in Data), D. DOT Crossing Inventory Number (054425N)

Part I: Location and Classification Information

Main form section containing: 1. Primary Operating Railroad (Boston & Maine Corporation), 2. State (NEW HAMPSHIRE), 3. County (ROCKINGHAM), 4. City / Municipality (GREENLAND), 5. Street/Road Name & Block Number (DEPOT RD), 6. Highway Type & No. (PRIVATE), 7. Do Other Railroads Operate a Separate Track at Crossing?, 8. Do Other Railroads Operate Over Your Track at Crossing?, 9. Railroad Division or Region (BOSTON & MAINE), 10. Railroad Subdivision or District (VS 28 MAP 9), 11. Branch or Line Name (PORTSMOUTH BR), 12. RR Milepost (0002.12), 13. Line Segment, 14. Nearest RR Timetable Station (GREENLAND), 15. Parent RR, 16. Crossing Owner, 17. Crossing Type (Private), 18. Crossing Purpose (Highway), 19. Crossing Position (At Grade), 20. Public Access (Yes), 21. Type of Train (Freight), 22. Average Passenger Train Count Per Day (0), 23. Type of Land Use (Residential), 24. Is there an Adjacent Crossing with a Separate Number?, 25. Quiet Zone (No), 26. HSR Corridor ID, 27. Latitude in decimal degrees, 28. Longitude in decimal degrees, 29. Lat/Long Source, 30.A-D. Railroad Use, 31.A-D. State Use (PORTSMOUTH BRANCH), 32.A. Narrative (Railroad Use), 32.B. Narrative (State Use), 33. Emergency Notification Telephone No., 34. Railroad Contact, 35. State Contact (603-271-7145)

Part II: Railroad Information

Form section containing: 1. Estimated Number of Daily Train Movements (1.A. Total Day Thru Trains: 0, 1.B. Total Night Thru Trains: 0, 1.C. Total Switching Trains: 0, 1.D. Total Transit Trains: 0, 1.E. Check if Less Than One Movement Per Day: No), 2. Year of Train Count Data (YYYY), 3. Speed of Train at Crossing (3.A. Maximum Timetable Speed: 0, 3.B. Typical Speed Range Over Crossing: 0 to 0), 4. Type and Count of Tracks (Main: 0, Siding, Yard, Transit, Industry), 5. Train Detection (Main Track only) (None), 6. Is Track Signaled? (No), 7.A. Event Recorder (No), 7.B. Remote Health Monitoring (No)

# U. S. DOT CROSSING INVENTORY FORM

A-41

A. Revision Date (MM/DD/YYYY) 07/25/2006		PAGE 2		D. Crossing Inventory Number (7 char.) 054425N	
<b>Part III: Highway or Pathway Traffic Control Device Information</b>					
1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 1		2.B. STOP Signs (R1-1) (count) 2	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input checked="" type="checkbox"/> W10-1 _____ <input type="checkbox"/> W10-3 _____ <input type="checkbox"/> W10-11 _____ <input type="checkbox"/> W10-2 _____ <input type="checkbox"/> W10-4 _____ <input type="checkbox"/> W10-12 _____	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count _____) <input checked="" type="checkbox"/> No		2.F. Pavement Markings <input type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input checked="" type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None	2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No
2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2.J. Other MUTCD Signs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2.L. LED Enhanced Signs (List types)
<b>3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)</b>					
3.A. Gate Arms (count) Roadway <u>0</u> Pedestrian _____	3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates <input type="checkbox"/> 4 Quad	3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane <u>0</u> <input type="checkbox"/> Incandescent Not Over Traffic Lane <u>0</u> <input type="checkbox"/> LED		3.D. Mast Mounted Flashing Lights (count of masts) <u>0</u> <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included	3.E. Total Count of Flashing Light Pairs <u>0</u>
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) _____/_____/_____ <input type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/_____ <input type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3.I. Bells (count) <u>0</u>
3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None				3.K. Other Flashing Lights or Warning Devices Count <u>0</u> Specify type _____	
4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs	4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____	6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None	
<b>Part IV: Physical Characteristics</b>					
1. Traffic Lanes Crossing Railroad Number of Lanes <u>1</u> <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/_____ <input type="checkbox"/> 1 Timber <input type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Approximate Distance (feet) <u>-75</u>		7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input checked="" type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Part V: Public Highway Information</b>					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input type="checkbox"/> (08) Non-Federal Aid		2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input type="checkbox"/> No	4. Highway Speed Limit _____ MPH <input type="checkbox"/> Posted <input type="checkbox"/> Statutory
7. Annual Average Daily Traffic (AADT) Year _____ AADT _____		8. Estimated Percent Trucks _____ %	9. Regularly Used by School Buses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Average Number per Day <u>0</u>		10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Submission Information - This information is used for administrative purposes and is not available on the public website.</b>					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					

# U. S. DOT CROSSING INVENTORY FORM

A-42

DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk \* denotes an optional field.

<b>A. Revision Date</b> (MM/DD/YYYY) 07 / 25 / 2006	<b>B. Reporting Agency</b> <input type="checkbox"/> Railroad <input type="checkbox"/> Transit <input checked="" type="checkbox"/> State <input type="checkbox"/> Other	<b>C. Reason for Update (Select only one)</b> <input checked="" type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction	<b>D. DOT Crossing Inventory Number</b> 844837H
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## Part I: Location and Classification Information

<b>1. Primary Operating Railroad</b> Boston & Maine Corporation [BM]	<b>2. State</b> NEW HAMPSHIRE	<b>3. County</b> ROCKINGHAM			
<b>4. City / Municipality</b> <input checked="" type="checkbox"/> In <input type="checkbox"/> Near PORTSMOUTH	<b>5. Street/Road Name &amp; Block Number</b> PORT AUTHORITY (Street/Road Name)   * (Block Number)	<b>6. Highway Type &amp; No.</b> PRIVATE			
<b>7. Do Other Railroads Operate a Separate Track at Crossing?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Specify RR	<b>8. Do Other Railroads Operate Over Your Track at Crossing?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Specify RR				
<b>9. Railroad Division or Region</b> <input type="checkbox"/> None BOSTON & MAINE	<b>10. Railroad Subdivision or District</b> <input type="checkbox"/> None VS 3	<b>11. Branch or Line Name</b> <input type="checkbox"/> None HAMPTON BRANCH	<b>12. RR Milepost</b> 0000.07 (prefix)   (nnnn.nnn)   (suffix)		
<b>13. Line Segment</b> *	<b>14. Nearest RR Timetable Station</b> *	<b>15. Parent RR (if applicable)</b> <input type="checkbox"/> N/A	<b>16. Crossing Owner (if applicable)</b> <input type="checkbox"/> N/A		
<b>17. Crossing Type</b> <input type="checkbox"/> Public <input checked="" type="checkbox"/> Private	<b>18. Crossing Purpose</b> <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.	<b>19. Crossing Position</b> <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over	<b>20. Public Access (if Private Crossing)</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>21. Type of Train</b> <input type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter <input type="checkbox"/> Transit <input type="checkbox"/> Shared Use Transit <input checked="" type="checkbox"/> Tourist/Other	<b>22. Average Passenger Train Count Per Day</b> <input type="checkbox"/> Less Than One Per Day <input checked="" type="checkbox"/> Number Per Day 8
<b>23. Type of Land Use</b> <input type="checkbox"/> Open Space <input type="checkbox"/> Farm <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard					
<b>24. Is there an Adjacent Crossing with a Separate Number?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Provide Crossing Number			<b>25. Quiet Zone (FRA provided)</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established		
<b>26. HSR Corridor ID</b> <input type="checkbox"/> N/A	<b>27. Latitude in decimal degrees</b> (WGS84 std: nn.nnnnnnn) 43.0310750	<b>28. Longitude in decimal degrees</b> (WGS84 std: -nnn.nnnnnnn) -71.0391850	<b>29. Lat/Long Source</b> <input type="checkbox"/> Actual <input type="checkbox"/> Estimated		
<b>30.A. Railroad Use *</b>			<b>31.A. State Use *</b> NEWINGTON BRANCH		
<b>30.B. Railroad Use *</b>			<b>31.B. State Use *</b>		
<b>30.C. Railroad Use *</b>			<b>31.C. State Use *</b>		
<b>30.D. Railroad Use *</b>			<b>31.D. State Use *</b>		
<b>32.A. Narrative (Railroad Use) *</b>			<b>32.B. Narrative (State Use) *</b>		
<b>33. Emergency Notification Telephone No. (posted)</b>		<b>34. Railroad Contact (Telephone No.)</b>		<b>35. State Contact (Telephone No.)</b> 603-271-7145	

## Part II: Railroad Information

<b>1. Estimated Number of Daily Train Movements</b>				
<b>1.A. Total Day Thru Trains (6 AM to 6 PM)</b> 0	<b>1.B. Total Night Thru Trains (6 PM to 6 AM)</b> 0	<b>1.C. Total Switching Trains</b> 0	<b>1.D. Total Transit Trains</b>	<b>1.E. Check if Less Than One Movement Per Day</b> <input type="checkbox"/> How many trains per week? _____
<b>2. Year of Train Count Data (YYYY)</b>		<b>3. Speed of Train at Crossing</b> 3.A. Maximum Timetable Speed (mph) 0 3.B. Typical Speed Range Over Crossing (mph) From 0 to 0		
<b>4. Type and Count of Tracks</b> Main 0 Siding _____ Yard _____ Transit _____ Industry _____				
<b>5. Train Detection (Main Track only)</b> <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input type="checkbox"/> DC <input type="checkbox"/> Other <input checked="" type="checkbox"/> None				
<b>6. Is Track Signaled?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>7.A. Event Recorder</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>7.B. Remote Health Monitoring</b> <input type="checkbox"/> Yes <input type="checkbox"/> No

# U. S. DOT CROSSING INVENTORY FORM

A-43

A. Revision Date (MM/DD/YYYY) 07/25/2006		PAGE 2		D. Crossing Inventory Number (7 char.) 844837H	
<b>Part III: Highway or Pathway Traffic Control Device Information</b>					
1. Are there Signs or Signals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 0		2.B. STOP Signs (R1-1) (count) 0	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input type="checkbox"/> W10-1 _____ <input type="checkbox"/> W10-3 _____ <input type="checkbox"/> W10-11 _____ <input type="checkbox"/> W10-2 _____ <input type="checkbox"/> W10-4 _____ <input type="checkbox"/> W10-12 _____	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count _____) <input checked="" type="checkbox"/> No		2.F. Pavement Markings <input type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input checked="" type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None	2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No
2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2.J. Other MUTCD Signs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.L. LED Enhanced Signs (List types)
<b>3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)</b>					
3.A. Gate Arms (count) Roadway 0 Pedestrian _____	3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates	3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane 0 <input type="checkbox"/> Incandescent Not Over Traffic Lane 0 <input type="checkbox"/> LED		3.D. Mast Mounted Flashing Lights (count of masts) 0 <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included	3.E. Total Count of Flashing Light Pairs 0
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) ____/____/____ <input type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/____ <input type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3.I. Bells (count) 0
3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None				3.K. Other Flashing Lights or Warning Devices Count 0 Specify type _____	
4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input type="checkbox"/> No	4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs	4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____	6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None	
<b>Part IV: Physical Characteristics</b>					
1. Traffic Lanes Crossing Railroad Number of Lanes _____		<input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic <input type="checkbox"/> Divided Traffic	2. Is Roadway/Pathway Paved? <input type="checkbox"/> Yes <input type="checkbox"/> No	3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input type="checkbox"/> Yes <input type="checkbox"/> No
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/____ Width * _____ Length * _____ <input type="checkbox"/> 1 Timber <input type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Approximate Distance (feet) _____			7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Part V: Public Highway Information</b>					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input type="checkbox"/> (08) Non-Federal Aid		2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input type="checkbox"/> No	4. Highway Speed Limit _____ MPH <input type="checkbox"/> Posted <input type="checkbox"/> Statutory
5. Linear Referencing System (LRS Route ID) *					
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year 1970 _____ AADT _____		8. Estimated Percent Trucks _____ %	9. Regularly Used by School Buses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Average Number per Day 0		10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Submission Information - This information is used for administrative purposes and is not available on the public website.</b>					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					



U.S. Department  
of Transportation  
Federal Railroad  
Administration

## USING DATA PRODUCED BY WBAPS (Web Accident Prediction System)

1200 New Jersey Avenue, SE  
Third Floor West  
Washington, DC 20590

WBAPS generates reports listing public highway-rail intersections for a State, County, City or railroad ranked by predicted collisions per year. These reports include brief lists of the Inventory record and the collisions over the last 10 years along with a list of contacts for further information. These data were produced by the Federal Railroad Administration's Web Accident Prediction System (WBAPS).

WBAPS is a computer model which provides the user an analytical tool, which combined with other site-specific information, can assist in determining where scarce highway-rail grade crossing resources can best be directed. This computer model does not rank crossings in terms of most to least dangerous. Use of WBAPS data in this manner is incorrect and misleading.

WBAPS provides the same reports as PCAPS, which is FRA's PC Accident Prediction System. PCAPS was originally developed as a tool to alert law enforcement and local officials of the important need to improve safety at public highway-rail intersections within their jurisdictions. It has since become an indispensable information resource which is helping the FRA, States, railroads, Operation Lifesaver and others, to raise the awareness of the potential dangers at public highway-rail intersections. The PCAPS/WBAPS output enables State and local highway and law enforcement agencies identify public highway-rail crossing locations which may require additional or specialized attention. It is also a tool which can be used by state highway authorities and railroads to nominate particular crossings which may require physical safety improvements or enhancements.

The WBAPS accident prediction formula is based upon two independent factors (variables) which includes (1) basic data about a crossing's physical and operating characteristics and (2) five years of accident history data at the crossing. These data are obtained from the FRA's inventory and accident/incident files which are subject to keypunch and submission errors. Although every attempt is made to find and correct errors, there is still a possibility that some errors still exist. Erroneous, inaccurate and non-current data will alter WBAPS accident prediction values. While approximately 100,000 inventory file changes and updates are voluntarily provided annually by States and railroads and processed by FRA into the National Inventory File, data records for specific crossings may not be completely current. Only the intended users (States and railroads) are really knowledgeable as to how current the inventory data is for a particular State, railroad, or location.

It is important to understand the type of information produced by WBAPS and the limitations on the application of the output data. WBAPS does not state that specific crossings are the most dangerous. Rather, the WBAPS data provides an indication that conditions are such that one crossing may possibly be more hazardous than another based on the specific data that is in the program. It is only one of many tools which can be used to assist individual States, railroads and local highway authorities in determining where and how to initially focus attention for improving safety at public highway-rail intersections. WBAPS is designed to nominate crossings for further evaluation based only upon the physical and operating characteristics of specific crossings as voluntarily reported and updated by States and railroads and five years of accident history data.

PCAPS and WBAPS software are not designed to single out specific crossings without considering the many other factors which may influence accident rates or probabilities. State highway planners may or may not use PCAPS/WBAPS accident prediction model. Some States utilize their own formula or model which may include other geographic and site-specific factors. At best, PCAPS and WBAPS software and data nominates crossings for further on-the-ground review by knowledgeable highway traffic engineers and specialists. The output information is not the end or final product and the WBAPS data should not be used for non-intended purposes.

It should also be noted that there are certain characteristics or factors which are not, nor can be, included in the WBAPS database. These include sight-distance, highway congestion, bus or hazardous material traffic, local topography, and passenger exposure (train or vehicle), etc. Be aware that PCAPS/WBAPS is only one model and that other accident prediction models which may be used by States may yield different, by just as valid, results for ranking crossings for safety improvements.

Finally, it should be noted that this database is not the sole indicator of the condition of a specific public highway-rail intersection. The WBAPS output must be considered as a supplement to the information needed to undertake specific actions aimed at enhancing highway-rail crossing safety at locations across the U.S. The authority and jurisdiction to appropriate resources towards the safety improvement or elimination of specific crossings lies with the individual States.



## ABBREVIATION KEY

for use with WBAPS Reports

The lists produced are only for public at-grade highway-rail intersections for the entity listed at the top of the page. The parameters shown are those used in the collision prediction calculation.

RANK:	Crossings are listed in order and ranked with the highest collision prediction value first.
PRED COLLS:	The accident prediction value is the probability that a collision between a train and a highway vehicle will occur at the crossing in a year.
CROSSING:	The unique sight specific identifying DOT/AAR Crossing Inventory Number.
RR:	The alphabetic abbreviation for the railroad name.
CITY:	The city in (or near) which the crossing is located.
ROAD:	The name of the road, street, or highway (if provided) where the crossing is located.
NUM OF COLLISIONS:	The number of accidents reported to FRA in each of the years indicated. Note: Most recent year is partial year (data is not for the complete calendar year) unless Accidents per Year is 'AS OF DECEMBER 31'.
DATE CHG:	The date of the latest change of the warning device category at the crossing which impacts the collision prediction calculation, e.g., a change from crossbucks to flashing lights, or flashing lights to gates. The accident prediction calculation utilizes three different formulas, on each for (1) passive devices, (2) flashing lights only, and (3) flashing lights with gates. When a date is shown, the collision history prior to the indicated year-month is not included in calculating the accident prediction value.
WD:	The type of warning device shown on the current Inventory record for the crossing where: FQ=Four Quad Gates; GT = All Other Gates; FL = Flashing lights; HS = Wigwags, Highway Signals, Bells, or Other Activated; SP = Special Protection (e.g., a flagman); SS = Stop Signs; XB = Crossbucks; OS = Other Signs or Signals; NO = No Signs or Signals.
TOT TRNS:	Number of total trains per day.
TOT TRKS:	Total number of railroad tracks between the warning devices at the crossing.
TTBL SPD:	The maximum timetable (allowable) speed for trains through the crossing.
HWY PVD:	Is the highway paved on both sides of the crossing?
HWY LNS:	The number of highway traffic lanes crossing the tracks at the crossing.
AADT:	The Average Annual Daily Traffic count for highway vehicles using the crossing.



**PUBLIC HIGHWAY-RAIL CROSSINGS RANKED BY PREDICTED  
ACCIDENTS PER YEAR AS OF 12/31/2014\***

\*Num of Collisions: Most recent year is partial year (data is not for the complete calendar year) unless Accidents per Year is 'AS OF DECEMBER 31'.

RANK	PRED COLLS.	CROSSING	RR	STATE	COUNTY	CITY	ROAD	NUM OF COLLISIONS					DATE CHG	W D	TOT TRN	TOT TRK	TTBL SPD	HWY PVD	HWY LNS	AADT
								14*	13	12	11	10								
1	0.029224	054416P	BM	NH	ROCKINGHAM	GREENLAND	GREENLAND RD	0	0	0	0	0	FL	4	1	15	YES	6	25,225	
2	0.020606	053090X	BM	NH	ROCKINGHAM	EXETER	MAIN ST	0	0	0	0	0	FQ	12	2	40	YES	2	12,480	
3	0.019845	053104D	BM	NH	ROCKINGHAM	NEWMARKET	NH COLLEGE HWY	0	0	0	0	0	GT	8	1	40	YES	2	15,928	
4	0.019187	053089D	BM	NH	ROCKINGHAM	EXETER	FRONT ST	0	0	0	0	0	FQ	12	1	79	YES	2	9,200	
5	0.017026	053075V	BM	NH	ROCKINGHAM	PLAISTOW	MAIN ST	0	0	0	0	0	FQ	10	1	40	YES	2	6,700	
6	0.013989	053078R	BM	NH	ROCKINGHAM	NEWTON	WEST MAIN ST	0	0	0	0	0	GT	8	1	40	YES	2	3,783	
7	0.011423	053084U	BM	NH	ROCKINGHAM	EAST KINGST	DEPOT RD	0	0	0	0	0	GT	10	1	40	YES	2	1,370	
8	0.010398	053077J	BM	NH	ROCKINGHAM	NEWTON	CRANE CROSSING	0	0	0	0	0	GT	8	1	40	YES	2	1,195	
9	0.010341	053099J	BM	NH	ROCKINGHAM	NEWFIELDS	SWAMSCOTT RD	0	0	0	0	0	GT	10	2	40	YES	2	560	
10	0.010240	054423A	BM	NH	ROCKINGHAM	GREENLAND	BAYRIDGE RD	0	0	0	0	0	SS	2	1	10	YES	2	560	
11	0.009088	054421L	BM	NH	ROCKINGHAM	GREENLAND	GREAT BAY RD	0	0	0	0	0	SS	4	1	15	YES	2	560	
12	0.009088	054424G	BM	NH	ROCKINGHAM	GREENLAND	DEARBORN RD	0	0	0	0	0	SS	4	1	15	YES	2	560	
13	0.009088	054418D	BM	NH	ROCKINGHAM	GREENLAND	BAYSIDE RD	0	0	0	0	0	SS	4	1	15	YES	2	560	
14	0.009025	053093T	BM	NH	ROCKINGHAM	EXETER	SALEM ST	0	0	0	0	0	GT	10	1	40	YES	2	560	
15	0.008774	054410Y	BM	NH	ROCKINGHAM	PORTSMOUTH	BARBERRY LN	0	0	0	0	0	SS	4	1	10	YES	1	560	
16	0.008502	053088W	BM	NH	ROCKINGHAM	EXETER	POWDER MILL RD	0	0	0	0	0	GT	8	1	40	YES	2	560	
17	0.008502	053106S	BM	NH	ROCKINGHAM	NEWMARKET	ELM ST	0	0	0	0	0	FQ	8	1	40	YES	2	560	
18	0.006196	053082F	BM	NH	ROCKINGHAM	KINGSTON	NEW BOSTON RD	0	0	0	0	0	GT	10	1	40	YES	2	140	
19	0.006006	053081Y	BM	NH	ROCKINGHAM	NEWTON	HEATH ST	0	0	0	0	0	GT	10	1	40	YES	2	125	
20	0.005109	054415H	BM	NH	ROCKINGHAM	GREENLAND	PORTSMOUTH AV	0	0	0	0	0	FL	4	1	15	YES	2	560	
21	0.001711	054417W	BM	NH	ROCKINGHAM	GREENLAND	TIDE MILL RD	0	0	0	0	0	XB	4	1	15	NO	1	25	
22	0.000341	054123L	BM	NH	ROCKINGHAM	PORTSMOUTH	GREEN ST	0	0	0	0	0	SS	0	1	25	YES	2	1,250	
23	0.000316	054126G	BM	NH	ROCKINGHAM	PORTSMOUTH	MICHAEL SUCCI	0	0	0	0	0	XB	0	1	15	YES	2	375	
24	0.000316	054117H	BM	NH	ROCKINGHAM	PORTSMOUTH	WBBX RD	0	0	0	0	0	SS	0	1	15	YES	1	560	
25	0.000316	054138B	BM	NH	ROCKINGHAM	NEWINGTON	PATTERSON LN	0	0	0	0	0	XB	0	1	15	YES	2	560	
26	0.000316	054129C	BM	NH	ROCKINGHAM	PORTSMOUTH	GOSLING RD	0	0	0	0	0	XB	0	1	15	YES	2	3,750	
27	0.000316	054114M	BM	NH	ROCKINGHAM	PORTSMOUTH	BANFIELD RD	0	0	0	0	0	SS	0	1	15	YES	2	560	
28	0.000174	054125A	BM	NH	ROCKINGHAM	PORTSMOUTH	MARKET ST	0	0	0	0	0	FL	0	1	15	YES	4	375	
29	0.000121	054122E	BM	NH	ROCKINGHAM	PORTSMOUTH	MAPLEWOOD AV	0	0	0	0	0	FL	0	1	15	YES	2	10,950	
30	0.000121	054118P	BM	NH	ROCKINGHAM	PORTSMOUTH	BARBERRY LN	0	0	0	0	0	FL	0	1	15	YES	2	560	
31	0.000121	054113F	BM	NH	ROCKINGHAM	PORTSMOUTH	OCEAN RD	0	0	0	0	0	FL	0	1	15	YES	2	5,276	
TTL:	0.245826							0	0	0	0	0								



**TEN YEAR COLLISION HISTORY AT PUBLIC AT-GRADE CROSSINGS ON THE  
ACCIDENT PREDICTION LIST**

Crossing	Date/Time	Railroad	City/hwy	Highway User/ User Speed	Type Track/ Train Speed	Weather	Circumstances/ View of Track Obstructed	Warning Devices/ Operating?	Interc/ Lights	# Killed / # Injured
<b>053104D</b>										
	12/06/05	ATK	NEWMARKET	AUTO	MAIN	35 F	TRN STRUCK HWY USR	GATES		0
	10:9AM		RT 108 ; EXETER ST	000MPH	040MPH	CLEAR	NOT OBSTRUCTED	YES	YES	0
<b>Total Accidents:</b> 1										
<b>054125A</b>										
	06/03/08	GRS	PORTSMOUTH	TRK/TRL	MAIN	80 F	TRN STRUCK HWY USR	STOP SIGNS	NO	0
	12:40PM		DRIVEWAY	007MPH	010MPH	CLEAR	NOT OBSTRUCTED		NO	0
<b>Total Accidents:</b> 1										

Total accidents this report: 2



HIGHWAY-RAIL GRADE CROSSING  
ACCIDENT/INCIDENT REPORT

B-5

DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION (FRA)

OMB Approval No. 2130-0500

Name Of 1. Reporting Railroad <b>Boston &amp; Maine Corporation [BM]</b>				Alphabetic Code 1a. <b>BM</b>	RR Accident/Incident No. 1b. <b>830056</b>
2. Other Railroad Involved in Train Accident/Incident				2a.	2b.
3. Railroad Responsible for Track Maintenance <b>Boston &amp; Maine Corporation [BM]</b>				3a. <b>BM</b>	3b. <b>830056</b>
4. U.S. DOT-AAR Grade Crossing ID No. <b>054118P</b>		5. Date of Accident/Incident <b>03/22/83</b>		6. Time of Accident/Incident <b>10:25 AM</b>	
7. Nearest Railroad Station <b>PORTSMOUTH</b>		8. Division <b>ROCKINGHAM</b>		9. County <b>ROCKINGHAM</b>	
10. State Abbr. <b>33</b> Code <b>NH</b>					
11. City (if in a city) <b>PORTSMOUTH</b>		12. Highway Name or No. <b>BARBERRY AVE</b>			<input checked="" type="checkbox"/> Public <input type="checkbox"/> Private
Highway User Involved			Rail Equipment Involved		
13. Type C. Truck-trailer F. Bus J. Other Motor Vehicle A. Auto D. Pick-up truck G. School Bus K. Pedestrian B. Truck E. Van H. Motorcycle M. Other (specify) Code <b>A</b>			17. Equipment 1. Train (units pulling) 5. Car(s) (standing) 2. Train (units pushing) 6. Light loco(s) (moving) 3. Train (standing) 7. Light loco(s) (standing) 8. Other (specify) A. Train pulling- RCL B. Train pushing- RCL C. Train standing- RCL Code <b>1</b>		
14. Vehicle Speed (est. mph at impact) <b>0</b>		15. Direction (geographical) 1. North 2. South 3. East 4. West Code <b>1</b>		18. Position of Car Unit in Train <b>1</b>	
16. Position 1. Stalled on crossing 3. Moving over crossing 2. Stopped on Crossing 4. Trapped Code <b>2</b>			19. Circumstance 1. Rail equipment struck highway user 2. Rail equipment struck by highway user Code <b>1</b>		
20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? 1. Highway User 2. Rail Equipment 3. Both 4. Neither Code <b>4</b>			20b. Was there a hazardous materials release by 1. Highway User 2. Rail Equipment 3. Both 4. Neither Code		
20c. State the name and quantity of the hazardous material released, if any					
21. Temperature (specify if minus) <b>48</b> °F		22. Visibility (single entry) 1. Dawn 2. Day 3. Dusk 4. Dark Code <b>2</b>		23. Weather (single entry) 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow Code <b>2</b>	
24. Type of Equipment Consist 1. Freight train 4. Work train 7. Yard/Switching (single entry) 2. Passenger train 5. Single car 8. Light loco(s) 3. Commuter train 6. Cut of cars 9. Main./inspect. car Code <b>1</b>			25. Track Type Used by Rail Equipment Involved 1. Main 2. Yard 3. Siding 4. Industry Code <b>1</b>		26. Track Number or Name <b>SINGLE MAIN</b>
27. FRA Track Class <b>1</b>	28. Number of Locomotive Units <b>1</b>	29. Number of Cars <b>5</b>	30. Consist Speed (Recorded if available) R. Recorded <b>5</b> mph E. Estimated Code <b>E</b>		31. Time Table Direction 1. North 2. South 3. East 4. West Code <b>4</b>
32. Type of Crossing 1. Gates 4. Wig wags 7. Crossbucks 10. Flagged by crew 2. Cantilever FLS 5. Hwy. traffic signals 8. Stop signs 11. Other (specify) Warning 3. Standard FLS 6. Audible 9. Watchman 12. None Code(s) <b>03 06 07</b>			33. Signaled Crossing Warning <b>20 sec warn min (1);</b>		34. Whistle Ban 1. Yes 2. No 3. Unknown Code
35. Location of Warning 1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach Code <b>1</b>			36. Crossing Warning Interconnected with Highway Signals 1. Yes 2. No 3. Unknown Code <b>2</b>		37. Crossing Illuminated by Street Lights or Special Lights 1. Yes 2. No 3. Unknown Code <b>2</b>
38. Driver's Age	39. Driver's Gender 1. Male 2. Female Code	40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train 1. Yes 2. No 3. Unknown Code <b>2</b>		41. Driver 1. Drove around or thru the gate 4. Stopped on crossing 2. Stopped and then proceeded 5. Other (specify) 3. Did not stop Code <b>4</b>	
42. Driver Passed Standing Highway Vehicle 1. Yes 2. No 3. Unknown Code <b>2</b>		43. View of Track Obscured by (primary obstruction) 1. Permanent Structure 3. Passing Train 5. Vegetation 7. Other (specify) 2. Standing railroad equipment 4. Topography 6. Highway Vehicles 8. Not Obstructed Code <b>8</b>			
Casualties to:		Killed	Injured	44. Driver was 1. Killed 2. Injured 3. Uninjured Code <b>3</b>	
46. Highway-Rail Crossing Users <b>0</b>		<b>0</b>	47. Highway Vehicle Property Damage (est. dollar damage) <b>\$300</b>		48. Total Number of Highway-Rail Crossing Users (include driver) <b>1</b>
49. Railroad Employees <b>0</b>	<b>0</b>	50. Total Number of People on Train (include passengers and crew)		51. Is a Rail Equipment Accident / Incident Report Being Filed 1. Yes 2. No Code <b>2</b>	
52. Passengers on Train <b>0</b>	<b>0</b>				
53a. Special Study Block			53b. Special Study Block		
54. Narrative Description					
55. Typed Name and Title		56. Signature			57. Date



RAILROAD  
CROSSING

STOP





Name Of				Alphabetic Code	RR Accident/Incident No.
1. Reporting Railroad Boston & Maine Corporation [BM]				1a. BM	1b. B86019
2. Other Railroad Involved in Train Accident/Incident				2a.	2b.
3. Railroad Responsible for Track Maintenance Boston & Maine Corporation [BM]				3a. BM	3b. B86019
4. U.S. DOT-AAR Grade Crossing ID No. 054122E		5. Date of Accident/Incident 01/17/86		6. Time of Accident/Incident 07:10 PM	
7. Nearest Railroad Station PORTSMOUTH		8. Division ROCKINGHAM		9. County ROCKINGHAM	
10. State Abbr. 33 NH		Code			
11. City (if in a city) PORTSMOUTH		12. Highway Name or No. MAPLEWOOD AVE		<input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	
Highway User Involved			Rail Equipment Involved		
13. Type C. Truck-trailer F. Bus J. Other Motor Vehicle A. Auto D. Pick-up truck G. School Bus K. Pedestrian B. Truck E. Van H. Motorcycle M. Other (specify)			Code A		
14. Vehicle Speed (est. mph at impact) 20			15. Direction (geographical) 1. North 2. South 3. East 4. West		
Code 1			17. Equipment 1. Train (units pulling) 5. Car(s) (standing) 2. Train (units pushing) 6. Light loco(s) (moving) 3. Train (standing) 7. Light loco(s) (standing)		
16. Position 1. Stalled on crossing 3. Moving over crossing 2. Stopped on Crossing 4. Trapped			Code 3		
18. Position of Car Unit in Train 1			19. Circumstance 1. Rail equipment struck highway user 2. Rail equipment struck by highway user		
Code 3			Code 2		
20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? 1. Highway User 2. Rail Equipment 3. Both 4. Neither			Code 4		
20b. Was there a hazardous materials release by 1. Highway User 2. Rail Equipment 3. Both 4. Neither			Code		
20c. State the name and quantity of the hazardous material released, if any					
21. Temperature (specify if minus) 38 °F		22. Visibility (single entry) 1. Dawn 2. Day 3. Dusk 4. Dark		Code 3	
23. Weather (single entry) 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow		Code 1			
24. Type of Equipment Consist 1. Freight train 4. Work train 7. Yard/Switching (single entry) 2. Passenger train 5. Single car 8. Light loco(s) 3. Commuter train 6. Cut of cars 9. Main./inspect. car			Code 1		25. Track Type Used by Rail Equipment Involved 1. Main 2. Yard 3. Siding 4. Industry
Code 1			Code 1		26. Track Number or Name MAIN
27. FRA Track Class 1	28. Number of Locomotive Units 1	29. Number of Cars 13	30. Consist Speed (Recorded if available) R. Recorded E. Estimated 3 mph		Code E
31. Time Table Direction 1. North 2. South 3. East 4. West			Code 1		
32. Type of Crossing 1. Gates 4. Wig wags 7. Crossbucks 10. Flagged by crew 2. Cantilever FLS 5. Hwy. traffic signals 8. Stop signs 11. Other (specify) Warning 3. Standard FLS 6. Audible 9. Watchman 12. None			33. Signaled Crossing Warning		Code
Code(s) 03 06 07			20 sec warn min (1);		34. Whistle Ban 1. Yes 2. No 3. Unknown
35. Location of Warning 1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach			Code 1		36. Crossing Warning Interconnected with Highway Signals 1. Yes 2. No 3. Unknown
Code 1			Code 2		37. Crossing Illuminated by Street Lights or Special Lights 1. Yes 2. No 3. Unknown
38. Driver's Age	39. Driver's Gender 1. Male 2. Female	Code		40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train 1. Yes 2. No 3. Unknown	
Code 2		Code 2		41. Driver 1. Drove around or thru the gate 4. Stopped on crossing 2. Stopped and then proceeded 5. Other (specify) 3. Did not stop	
Code 2		Code 2		Code 3	
42. Driver Passed Standing Highway Vehicle 1. Yes 2. No 3. Unknown			Code 2		43. View of Track Obscured by (primary obstruction) 1. Permanent Structure 3. Passing Train 5. Vegetation 7. Other (specify) 2. Standing railroad equipment 4. Topography 6. Highway Vehicles 8. Not Obstructed
Code 2			Code 8		
Casualties to:		Killed	Injured	44. Driver was 1. Killed 2. Injured 3. Uninjured	
Code		Code	Code	Code 3	
Code 0		Code 0	Code 0	45. Was Driver in the Vehicle? 1. Yes 2. No	
Code 0		Code 0	Code 0	Code 1	
46. Highway-Rail Crossing Users 0			47. Highway Vehicle Property Damage (est. dollar damage) \$2,500		48. Total Number of Highway-Rail Crossing Users (include driver) 2
Code 0			Code 2,500		Code 2
49. Railroad Employees 0			50. Total Number of People on Train (include passengers and crew) 0		51. Is a Rail Equipment Accident / Incident Report Being Filed 1. Yes 2. No
Code 0			Code 0		Code 2
52. Passengers on Train 0			Code 0		
53a. Special Study Block			53b. Special Study Block		
54. Narrative Description					
55. Typed Name and Title			56. Signature		57. Date









P  
→  
PARKING

RAILROAD  
CROSSING

ROAD  
WORK  
AHEAD





RAILROAD CROSSING  
CROSS ROAD

DETOUR

WEST

Maplewood Avenue

←

DO NOT STOP ON TRACKS

P ↑

ONLY

Deer St

P

HIGHWAY-RAIL GRADE CROSSING  
ACCIDENT/INCIDENT REPORT

**B-10**

DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION (FRA)

OMB Approval No. 2130-0500

Name Of				Alphabetic Code	RR Accident/Incident No.
1. Reporting Railroad Pam Am Railways/Guilford System [GRS]				1a. GRS	1b. 217
2. Other Railroad Involved in Train Accident/Incident				2a.	2b.
3. Railroad Responsible for Track Maintenance Pam Am Railways/Guilford System [GRS]				3a. GRS	3b. 217
4. U.S. DOT-AAR Grade Crossing ID No. 054125A		5. Date of Accident/Incident 06/03/08		6. Time of Accident/Incident 12:40 PM	
7. Nearest Railroad Station PORTSMOUTH		8. Division EASTERN		9. County ROCKINGHAM	
11. City (if in a city) PORTSMOUTH		12. Highway Name or No. DRIVEWAY		10. State Code Abbr. 33 NH	
11. City (if in a city) PORTSMOUTH		12. Highway Name or No. DRIVEWAY		<input type="checkbox"/> Public <input checked="" type="checkbox"/> Private	
Highway User Involved			Rail Equipment Involved		
13. Type C. Truck-trailer F. Bus J. Other Motor Vehicle A. Auto D. Pick-up truck G. School Bus K. Pedestrian B. Truck E. Van H. Motorcycle M. Other (specify) Code C			17. Equipment 1. Train (units pulling) 5. Car(s) (standing) 2. Train (units pushing) 6. Light loco(s) (moving) 3. Train (standing) 7. Light loco(s) (standing) 8. Other (specify) A. Train pulling- RCL B. Train pushing- RCL C. Train standing- RCL Code 2		
14. Vehicle Speed (est. mph at impact) 7		15. Direction (geographical) 1. North 2. South 3. East 4. West Code 1		18. Position of Car Unit in Train 1	
16. Position 1. Stalled on crossing 3. Moving over crossing 2. Stopped on Crossing 4. Trapped Code 3		19. Circumstance 1. Rail equipment struck highway user 2. Rail equipment struck by highway user Code 1			
20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? 1. Highway User 2. Rail Equipment 3. Both 4. Neither Code 4		20b. Was there a hazardous materials release by 1. Highway User 2. Rail Equipment 3. Both 4. Neither Code 4			
20c. State the name and quantity of the hazardous material released, if any					
21. Temperature (specify if minus) 80 °F		22. Visibility (single entry) 1. Dawn 2. Day 3. Dusk 4. Dark Code 2		23. Weather (single entry) 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow Code 1	
24. Type of Equipment Consist 1. Freight train 4. Work train 7. Yard/Switching (single entry) 2. Passenger train 5. Single car 8. Light loco(s) 3. Commuter train 6. Cut of cars 9. Main./inspect. car Code 1			25. Track Type Used by Rail Equipment Involved 1. Main 2. Yard 3. Siding 4. Industry Code 1		26. Track Number or Name NEWINGTON MAINLINE
27. FRA Track Class 2		28. Number of Locomotive Units 1	29. Number of Cars 4	30. Consist Speed (Recorded if available) R. Recorded E. Estimated 10 mph Code E	31. Time Table Direction 1. North 2. South 3. East 4. West Code 4
32. Type of Crossing 1. Gates 4. Wig wags 7. Crossbucks 10. Flagged by crew 2. Cantilever FLS 5. Hwy. traffic signals 8. Stop signs 11. Other (specify) Warning 3. Standard FLS 6. Audible 9. Watchman 12. None Code(s) 08			33. Signaled Crossing Warning		34. Whistle Ban 1. Yes 2. No 3. Unknown Code 2
35. Location of Warning 1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach Code 2			36. Crossing Warning Interconnected with Highway Signals 1. Yes 2. No 3. Unknown Code 2		37. Crossing Illuminated by Street Lights or Special Lights 1. Yes 2. No 3. Unknown Code 2
38. Driver's Age 63	39. Driver's Gender 1. Male 2. Female Code 1	40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train 1. Yes 2. No 3. Unknown Code 1		41. Driver 1. Drove around or thru the gate 4. Stopped on crossing 2. Stopped and then proceeded 5. Other (specify) 3. Did not stop Code 3	
42. Driver Passed Standing Highway Vehicle 1. Yes 2. No 3. Unknown Code 2		43. View of Track Obscured by (primary obstruction) 1. Permanent Structure 3. Passing Train 5. Vegetation 7. Other (specify) 2. Standing railroad equipment 4. Topography 6. Highway Vehicles 8. Not Obstructed Code 8			
Casualties to:		Killed	Injured	44. Driver was 1. Killed 2. Injured 3. Uninjured Code 3	
46. Highway-Rail Crossing Users 0		0	47. Highway Vehicle Property Damage (est. dollar damage) \$0		48. Total Number of Highway-Rail Crossing Users (include driver) 1
49. Railroad Employees 0		0	50. Total Number of People on Train (include passengers and crew) 2		51. Is a Rail Equipment Accident / Incident Report Being Filed 1. Yes 2. No Code 2
52. Passengers on Train 0		0			
53a. Special Study Block			53b. Special Study Block		
54. Narrative Description TRAIN PH-1 WAS SHOVING BACK 4 CARS TOWARD MARKET STREET CROSSING. VEHICLE DID NOT STOP AT THE PRIVATE CROSSING WHILE LEAVING THE TRUCK DRIVERS FACILITY. THE DRIVERS STATES HE WAS LOOKING IN THE WRONG DIRECTION TO MAKE A TURN. THE TRAIN WENT INTO EMERGENCY AND STRUCK THE VEHICLE.					
55. Typed Name and Title		56. Signature			57. Date

HIGHWAY-RAIL GRADE CROSSING  
ACCIDENT/INCIDENT REPORT

B-11

DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION (FRA)

OMB Approval No. 2130-0500

Name Of 1. Reporting Railroad <p style="text-align: center;">Springfield Terminal Railway Company (Vermont)</p>				Alphabetic Code 1a. ST		RR Accident/Incident No. 1b. S90025	
2. Other Railroad Involved in Train Accident/Incident				2a.		2b.	
3. Railroad Responsible for Track Maintenance <p style="text-align: center;">Springfield Terminal Railway Company (Vermont)</p>				3a. ST		3b. S90025	
4. U.S. DOT-AAR Grade Crossing ID No. <p style="text-align: center;">054125A</p>		5. Date of Accident/Incident 02/14/90		6. Time of Accident/Incident 06:04 PM			
7. Nearest Railroad Station <p style="text-align: center;">PORTSMOUTH</p>		8. Division		9. County <p style="text-align: center;">ROCKINGHAM</p>		10. State Code Abbr. 33 NH	
11. City (if in a city) PORTSMOUTH		12. Highway Name or No. MARKET STREET EXT.				<input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	
Highway User Involved				Rail Equipment Involved			
13. Type C. Truck-trailer F. Bus J. Other Motor Vehicle A. Auto D. Pick-up truck G. School Bus K. Pedestrian B. Truck E. Van H. Motorcycle M. Other (specify)		Code A		17. Equipment 1. Train (units pulling) 5. Car(s) (standing) 2. Train (units pushing) 6. Light loco(s) (moving) 3. Train (standing) 7. Light loco(s) (standing)		8. Other (specify) A. Train pulling- RCL B. Train pushing- RCL C. Train standing- RCL	
14. Vehicle Speed (est. mph at impact) 20		15. Direction (geographical) 1. North 2. South 3. East 4. West		Code 1		18. Position of Car Unit in Train <p style="text-align: center;">1</p>	
16. Position 1. Stalled on crossing 3. Moving over crossing 2. Stopped on Crossing 4. Trapped		Code 3		19. Circumstance 1. Rail equipment struck highway user 2. Rail equipment struck by highway user			
20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? 1. Highway User 2. Rail Equipment 3. Both 4. Neither		Code 4		20b. Was there a hazardous materials release by 1. Highway User 2. Rail Equipment 3. Both 4. Neither			
20c. State the name and quantity of the hazardous material released, if any							
21. Temperature (specify if minus) 24 °F		22. Visibility (single entry) 1. Dawn 2. Day 3. Dusk 4. Dark		Code 4		23. Weather (single entry) 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow	
24. Type of Equipment Consist 1. Freight train 4. Work train 7. Yard/Switching (single entry) 2. Passenger train 5. Single car 8. Light loco(s) 3. Commuter train 6. Cut of cars 9. Main./inspect. car		A. Spec. MoW Equip Code 7		25. Track Type Used by Rail Equipment Involved 1. Main 2. Yard 3. Siding 4. Industry		Code 2	
26. Track Number or Name <p style="text-align: center;">MAIN LINE</p>		27. FRA Track Class 1		28. Number of Locomotive Units 1		29. Number of Cars 8	
30. Consist Speed (Recorded if available) R. Recorded E. Estimated		Code 3 mph		31. Time Table Direction 1. North 2. South 3. East 4. West		Code 3	
32. Type of Crossing 1. Gates 4. Wig wags 7. Crossbucks 10. Flagged by crew 2. Cantilever FLS 5. Hwy. traffic signals 8. Stop signs 11. Other (specify) Warning 3. Standard FLS 6. Audible 9. Watchman 12. None		Code(s) 03		33. Signaled Crossing Warning 20 sec warn min (1);		34. Whistle Ban 1. Yes 2. No 3. Unknown	
35. Location of Warning 1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach		Code 1		36. Crossing Warning Interconnected with Highway Signals 1. Yes 2. No 3. Unknown		Code 2	
37. Crossing Illuminated by Street Lights or Special Lights 1. Yes 2. No 3. Unknown		Code 2		38. Driver's Age 39. Driver's Gender 1. Male 2. Female		40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train 1. Yes 2. No 3. Unknown	
Code 2		41. Driver 1. Drove around or thru the gate 4. Stopped on crossing 2. Stopped and then proceeded 5. Other (specify) 3. Did not stop		Code 3			
42. Driver Passed Standing Highway Vehicle 1. Yes 2. No 3. Unknown		Code 2		43. View of Track Obscured by (primary obstruction) 1. Permanent Structure 3. Passing Train 5. Vegetation 7. Other (specify) 2. Standing railroad equipment 4. Topography 6. Highway Vehicles 8. Not Obstructed			
44. Driver was 1. Killed 2. Injured 3. Uninjured		Code 3		45. Was Driver in the Vehicle? 1. Yes 2. No			
Code 1		46. Highway-Rail Crossing Users 0		47. Highway Vehicle Property Damage (est. dollar damage) \$3,000		48. Total Number of Highway-Rail Crossing Users (include driver) 1	
49. Railroad Employees 0		50. Total Number of People on Train (include passengers and crew) 0		51. Is a Rail Equipment Accident / Incident Report Being Filed 1. Yes 2. No			
Code 2		53a. Special Study Block		53b. Special Study Block			
54. Narrative Description							
55. Typed Name and Title		56. Signature				57. Date	



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SEA-3, Inc. Terminal: 190 Shattuck Way Newington, NH 03801-7868 Tel: (603) 431-5990 Fax: (603) 431-5652 E-mail: [newington@sea-3.com](mailto:newington@sea-3.com)

## **NEWINGTON MARINE TERMINAL**

### **RISK MANAGEMENT PROGRAM**

eSUBMIT June 25, 2014

**Section 1. Registration Information**

Reason for Resubmission	5-year update (40 CFR 68.190(b)(1))
<b>1.1 Source Identification</b>	
1.1.a. Facility Name	Sea-3, Inc.
1.1.b. Parent Company #1 Name	Trammo, Inc.
1.1.c. Parent Company #2 Name	
1.2 EPA Facility Identifier	100000165368
1.3 Other EPA Systems Facility Identifier	NHD 986468197
<b>1.4 Dun and Bradstreet Numbers (DUNS)</b>	
1.4.a. Facility DUNS	037226180
1.4.b. Parent Company #1 DUNS	041909466
1.4.c. Parent Company #2 DUNS	
<b>1.5 Facility Location</b>	
1.5.a. Street - Line 1	190 Shattuck Way
1.5.b. Street - Line 2	
1.5.c. City	Newington
1.5.d. State	NH
1.5.e. Zip Code - Zip +4 Code	03801
1.5.f. County	ROCKINGHAM
1.5.g. Facility Latitude (in decimal degrees)	43.104722
1.5.h. Facility Longitude (in decimal degrees)	-070.802500
1.5.i. Method for determining Lat/Long	Interpolation - Photo
1.5.j. Description of location identified by Lat/Long	Loading Facility
1.5.k. Horizontal Accuracy Measure (meters)	25
1.5.l. Horizontal Reference Datum Code	North American Datum of 1983
1.5.m. Source Map Scale Number	24000
<b>1.6 Owner or Operator</b>	
1.6.a. Name	Sea-3, Inc.
1.6.b. Phone	(603) 431-5990
1.6.c. Street - Line 1	190 Shattuck Way
1.6.d. Street - Line 2	
1.6.e. City	Newington
1.6.f. State	NH
1.6.g. Zip Code - Zip +4 Code	03801
Foreign Country	
Foreign State/Province	
Foreign Zip/Postal Code	
<b>1.7 Name, title and email address of person or position responsible for RMP (part 68) implementation</b>	
1.7.a. Name of person	Paul N. Bogan
1.7.b. Title of person or position	Vice President - Operations
1.7.c. Email address of person or position	paul.bogan@sea-3.com

**Section 1. Registration Information**

<b>1.8 Emergency Contact</b>	
<b>1.8.a. Name</b>	Paul N. Bogan
<b>1.8.b. Title of person or position</b>	Vice President - Operations
<b>1.8.c. Phone</b>	(603) 431-5990
<b>1.8.d. 24-Hour Phone</b>	(603) 431-5990
<b>1.8.e. 24-Hour Phone Extension/PIN #</b>	
<b>1.8.f. Email address for emergency contact</b>	paul.bogan@sea-3.com
<b>1.9 Other Points of Contact</b>	
<b>1.9.a. Facility or Parent Company E-mail Address</b>	paul.bogan@sea-3.com
<b>1.9.b. Facility Public Contact Phone Number</b>	(603) 431-5990
<b>1.9.c. Facility or Parent Company WWW Homepage Address</b>	www.trammo.com
<b>1.10 Local Emergency Planning Committee (LEPC)</b>	Newington LEPC
<b>1.11 Number of fulltime equivalent (FTEs) employees on site</b>	16
<b>1.12 Covered by</b>	
<b>1.12.a. OSHA PSM</b>	Y
<b>1.12.b. EPCRA section 302</b>	
<b>1.12.c. CAA Title V Air Operating Permit Program</b>	
<b>1.12.d. Air Operating Permit ID #</b>	
<b>1.13 OSHA Star or Merit Ranking</b>	
<b>1.14 Last Safety Inspection (by an External Agency) Date</b>	06/02/2010
<b>1.15 Last Safety Inspection Performed by an External Agency</b>	EPA
<b>1.16 Will this RMP involve Predictive Filing?</b>	
<b>1.18 RMP Preparer Information</b>	
<b>1.18.a. Name</b>	Neal E. Frangesh
<b>1.18.b. Phone</b>	(781) 837-6300
<b>1.18.c. Street - Line 1</b>	399 North Street
<b>1.18.d. Street - Line 2</b>	
<b>1.18.e. City</b>	Duxbury
<b>1.18.f. State</b>	MA
<b>1.18.g. Zip</b>	02332
<b>Foreign Country</b>	
<b>Foreign State/Province</b>	
<b>Foreign Zip Code</b>	



### Section 1. Registration Information

#### Section 1.17 Process Specific Information

##### Process 1

<b>Process ID #</b>	<b>1000055715</b>		
<b>Process Description</b>	<b>LPG Storage/ Distribution</b>		
<b>1.17.a. Program Level</b>	3		
<b>1.17.b. NAICS Code(s)</b>	42471 (Petroleum Bulk Stations and Terminals)		
<b>1.17.c. Chemical(s)</b>			
	<b>Chemical Name</b>	<b>CAS Number</b>	<b>Quantity</b>
	Propane	74-98-6	110000000
	Ethyl mercaptan [Ethanethiol]	75-08-1	13000



**Section 4. Flammables: Worst Case****Scenario 1**

Process Name	LPG Storage/ Distribution
<b>Chemical</b>	Propane
4.1.a. Chemical Name	Propane
4.2 Model Used	EPA's RMP*Comp(TM)
4.3 Scenario	Vapor Cloud Explosion
4.4 Quantity Released (lbs)	82000000
4.5 Endpoint Used	1 PSI
4.6 Distance to endpoint (miles)	0.6
4.7 Estimated residential population within distance to endpoint (numbers)	200
<b>4.8 Public receptors within distance to endpoint</b>	
4.8.a. Schools	Y
4.8.b. Residences	Y
4.8.c. Hospitals	
4.8.d. Prison/Correctional Facilities	
4.8.e. Recreational Areas	Y
4.8.f. Major commercial, office or industrial areas	Y
4.8.g. Other	
<b>4.9 Environmental receptors within distance to endpoint</b>	
4.9.a. National or State Parks, Forests or Monuments	
4.9.b. Officially Designated Wildlife Sanctuaries, Preserves or Refuges	
4.9.c. Federal Wilderness Area	
4.9.d. Other	
<b>4.10 Passive mitigation considered</b>	
4.10.a. Blast Walls	
4.10.b. Other	Impoundment (gas liquefied by refrigeration)
4.11 Graphic file	

**Section 5. Flammables: Alternative Release****Scenario 1**

<b>Process Name</b>	<b>LPG Storage/ Distribution</b>
<b>Chemical</b>	<b>Propane</b>
5.1.a. Chemical Name	Propane
5.2 Model Used	EPA's RMP*Comp(TM)
5.3 Scenario	Vapor Cloud Fire
5.4 Quantity Released (lbs)	5500
5.5 Endpoint Used	Lower flammability limit
5.6 Distance to endpoint (miles)	0.1
5.7 Estimated residential population within distance to endpoint (numbers)	0
<b>5.8 Public receptors within distance to endpoint</b>	
5.8.a. Schools	
5.8.b. Residences	
5.8.c. Hospitals	
5.8.d. Prison/Correctional Facilities	
5.8.e. Recreational Areas	
5.8.f. Major commercial, office or industrial areas	Y
5.8.g. Other	
<b>5.9 Environmental receptors within distance to endpoint</b>	
5.9.a. National or State Parks, Forests or Monuments	
5.9.b. Officially Designated Wildlife Sanctuaries, Preserves or Refuges	
5.9.c. Federal Wilderness Area	
5.9.d. Other	
<b>5.10 Passive mitigation considered</b>	
5.10.a. Dikes	
5.10.b. Fire walls	
5.10.c. Blast walls	
5.10.d. Enclosures	
5.10.e. Other	
<b>5.11 Active mitigation considered</b>	
5.11.a. Sprinkler systems	
5.11.b. Deluge systems	
5.11.c. Water curtain	
5.11.d. Excess flow valve	
5.11.e. Other	Emergency Shutdown System
5.12 Graphic file	



## Section 7. Prevention Program: Program Level 3

## Program 1

Prevention Program Description:	
<b>7.1 NAICS Code for process</b>	
7.1.a. Process Name	1000055715 (LPG Storage/ Distribution)
7.1.b. NAICS	42471 (Petroleum Bulk Stations and Terminals)
<b>7.2 Chemicals</b>	
Propane	
Ethyl mercaptan [Ethanethiol]	
7.3 Date on which the safety information was last reviewed or revised	03/26/2009
<b>7.4 Process Hazard Analysis (PHA)</b>	
7.4.a. Date of last PHA or PHA update	04/14/2011
7.4.b. Technique used	
7.4.b.1. What if	Y
7.4.b.2. Checklist	
7.4.b.3. What if/Checklist Combined	
7.4.b.4. HAZOP	
7.4.b.5. Failure mode & effects analysis	
7.4.b.6. Fault tree analysis	
7.4.b.7. Other	
7.4.c. Expected or actual date of completion of all changes resulting from last PHA or PHA update	10/28/2011
<b>7.4.d. Major hazards identified</b>	
7.4.d.1. Toxic release	
7.4.d.2. Fire	Y
7.4.d.3. Explosion	Y
7.4.d.4. Runaway reaction	
7.4.d.5. Polymerization	
7.4.d.6. Overpressurization	
7.4.d.7. Corrosion	
7.4.d.8. Overfilling	
7.4.d.9. Contamination	
7.4.d.10. Equipment failure	
7.4.d.11. Loss of cooling, heating, electricity, instrument air	
7.4.d.12. Earthquake	
7.4.d.13. Floods	
7.4.d.14. Tornado	
7.4.d.15. Hurricanes	
7.4.d.16. Other	Results of identified hazards were fire, explosion, or personal injury.
<b>7.4.e. Process controls in use</b>	
7.4.e.1. Vents	Y
7.4.e.2. Relief valves	Y
7.4.e.3. Check valves	Y
7.4.e.4. Scrubbers	



**Section 7. Prevention Program: Program Level 3**

7.4.e.5. Flares	Y
7.4.e.6. Manual shutoffs	Y
7.4.e.7. Automatic shutoffs	Y
7.4.e.8. Interlocks	Y
7.4.e.9. Alarms and procedures	Y
7.4.e.10. Keyed bypass	
7.4.e.11. Emergency air supply	Y
7.4.e.12. Emergency power	Y
7.4.e.13. Backup pump	
7.4.e.14. Grounding equipment	Y
7.4.e.15. Inhibitor additions	
7.4.e.16. Rupture disks	
7.4.e.17. Excess flow device	Y
7.4.e.18. Quench system	
7.4.e.19. Purge system	
7.4.e.20. None	
7.4.e.21. Other	process alarms
<b>7.4.f. Mitigation systems in use</b>	
7.4.f.1. Sprinkler system	Y
7.4.f.2. Dikes	Y
7.4.f.3. Fire walls	Y
7.4.f.4. Blast walls	
7.4.f.5. Deluge system	Y
7.4.f.6. Water curtain	Y
7.4.f.7. Enclosure	
7.4.f.8. Neutralization	
7.4.f.9. None	
7.4.f.10. Other	Remote control fire water monitors; Halon extinguishing
<b>7.4.g. Monitoring/detection systems in use</b>	
7.4.g.1. Process area detectors	Y
7.4.g.2. Perimeter monitors	
7.4.g.3. None	
7.4.g.4. Other	CCTV
<b>7.4.h. Changes since last PHA update</b>	
7.4.h.1. Reduction in chemical inventory	
7.4.h.2. Increase in chemical inventory	
7.4.h.3. Change in process parameters	
7.4.h.4. Installation of process controls	Y
7.4.h.5. Installation of process detection systems	
7.4.h.6. Installation of perimeter monitoring systems	
7.4.h.7. Installation of mitigation systems	
7.4.h.8. None recommended	
7.4.h.9. None	
7.4.h.10. Other	
7.5 Date of most recent review or revision of operating procedures	09/20/2013

**Section 7. Prevention Program: Program Level 3**

<b>7.6 Training</b>	
<b>7.6.a. Date of most recent review or revision of training programs</b>	11/14/2013
<b>7.6.b. Type of training provided</b>	
<b>7.6.b.1. Classroom</b>	Y
<b>7.6.b.2. On the job</b>	Y
<b>7.6.b.3. Other</b>	Massachusetts Firefighting Academy
<b>7.6.c. Type of competency testing used</b>	
<b>7.6.c.1. Written test</b>	Y
<b>7.6.c.2. Oral test</b>	Y
<b>7.6.c.3. Demonstration</b>	Y
<b>7.6.c.4. Observation</b>	Y
<b>7.6.c.5. Other</b>	
<b>7.7 Maintenance</b>	
<b>7.7.a. Date of most recent review or revision of maintenance procedures</b>	05/19/2014
<b>7.7.b. Date of most recent equipment inspection or test</b>	06/17/2014
<b>7.7.c. Equipment most recently inspected or tested (equipment list)</b>	Pressure test of hot water boiler
<b>7.8 Management of change</b>	
<b>7.8.a. Date of most recent changes that triggered management of change procedures</b>	01/15/2013
<b>7.8.b. Date of most recent review or revision of management of change procedures</b>	01/15/2013
<b>7.9 Date of most recent pre-startup review</b>	10/08/2009
<b>7.10 Compliance audits</b>	
<b>7.10.a. Date of most recent compliance audits</b>	05/31/2013
<b>7.10.b. Expected or actual date of completion of all changes resulting from the most recent compliance audits</b>	12/31/2013
<b>7.11 Incident investigation</b>	
<b>7.11.a. Date of most recent incident investigation</b>	
<b>7.11.b. Expected or actual date of completion of all changes resulting from the incident investigation</b>	
<b>7.12 Date of most recent review or revision of employee participation plans</b>	03/09/2009
<b>7.13 Date of most recent review or revision of hot work permit procedures</b>	06/23/2008
<b>7.14 Date of most recent review or revision of contractor safety procedures</b>	06/23/2008
<b>7.15 Date of most recent evaluation of contractor safety performance</b>	06/23/2008



### Section 9. Emergency Response

<b>9.1 Written emergency response (ER) plan</b>	
<b>9.1.a. Is your facility included in the written community emergency response plan?</b>	Y
<b>9.1.b. Does your facility have its own written emergency response plan?</b>	
<b>9.2 Does your facility's ER plan include specific actions to be taken in response to accidental releases of regulated substances?</b>	
<b>9.3 Does your facility's ER plan include procedures for informing the public and local agencies responding to accidental releases?</b>	
<b>9.4 Does your facility's ER plan include information on emergency health care?</b>	
<b>9.5 Date of most recent review or update of your facility's ER plan</b>	
<b>9.6 Date of most recent ER training for your facility's employees</b>	
<b>9.7 Local agency with which your facility's ER plan or response activities are coordinated</b>	
<b>9.7.a. Name of agency</b>	Newington Fire Department
<b>9.7.b. Phone number</b>	(603) 436-9441
<b>9.8 Subject to</b>	
<b>9.8.a. OSHA Regulations at 29 CFR 1910.38</b>	Y
<b>9.8.b. OSHA Regulations at 29 CFR 1910.120</b>	Y
<b>9.8.c. Clean Water Act Regulations at 40 CFR 112</b>	
<b>9.8.d. RCRA Regulations at 40 CFR 264, 265, 279.52</b>	
<b>9.8.e. OPA-90 Regulations at 40 CFR 112, 33 CFR 154, 49 CFR 194, 30 CFR 254</b>	
<b>9.8.f. State EPCRA Rules of Laws</b>	Y
<b>9.8.g. Other</b>	



## Executive Summary

### Risk Management Plan Executive Summary Sea-3, Inc. Wholesale Propane (LPG) Import and Distribution Terminal

#### 1. Accidental Release Prevention and Response Policies

Constructed in 1974-75, the Sea-3 Newington LPG Terminal provides a vital energy service to homeowners, commercial businesses, and industry. The facility has an excellent safety record, and its employees are key players in achieving that safety record.

Sea-3 is committed to safe and reliable operation for the protection of its employees, the community, and the environment. Sea-3 is proud of its 40 year operating record, during which there has never been an incident that resulted in any off-site impacts to neighboring industries, residents or the community at large. This record has been achieved through consistent attention and total dedication by management and staff to safe operating practices and preventive maintenance. Sea-3 has constantly made new investments in the latest technology in operating and maintaining the facility. These practices form the backbone of Sea-3's dedication to keeping the facility and its community safe.

#### 2. Description of the source and regulated substances handled.

The Sea-3 Terminal in Newington, NH imports and stores fully refrigerated liquid propane (also called liquefied petroleum gas or LPG) at -45A°F. The terminal processes this product by heating it to +40A°F for shipment to its customers by truck and rail. Ethyl mercaptan, an odorizing agent, is added to the LPG being distributed from the terminal. Both propane and ethyl mercaptan are regulated flammable substances. The terminal has no RMP listed toxic chemicals in threshold quantities.

#### 3. Release Prevention Program

The terminal was designed and built in accordance with provisions of the following three recognized standards for LPG facilities:

- \* NFPA 58, Standard for the Storage and Handling of Liquefied Petroleum Gases, (National Fire Protection Association).
- \* API 2510, Design and Construction of Liquefied Petroleum Gas (LPG) Installations, (American Petroleum Institute).
- \* API 620, Design and Construction of Large, Welded, Low-Pressure Storage Tanks, (American Petroleum Institute).

Operating areas of the plant are monitored by combustible vapor detectors to quickly detect any leaks. Ultraviolet flame detectors monitor the plant to detect fires. The plant is attended by at least two operators at all times. They log field operating data at two-hour intervals and monitor plant equipment using the following monitoring and control systems:

- \* The main control panel, located in the central control room, displays pressures, temperatures, valve positions, and flow rates and provides for remote operation and manual or automatic shutdown of valves and equipment.
- \* The emergency control panel, also located in the central control room, displays readings of combustible vapor detectors and fire detectors. It provides fire department notification and manual and automatic activation of water deluge and emergency shutdown systems.
- \* A closed circuit television (CCTV) system, with displays located in the central control room, is used for surveillance and security of all portions of the terminal.

Written policies and procedures for safe operation are contained in the following Sea-3 manuals:

- \* "Sea-3 Standard Operating Procedures Manual," covering normal startup, operation, and shutdown of plant systems and equipment.
- \* "Sea-3 Safety Standards and Procedures Manual," covering safe handling of the product and other materials used in the plant. It covers safe work practices and permitting requirements for such activities as hot work, electrical work, confined space and vessel entry, excavation, and other hazardous activities. Plant



## Executive Summary

security and visitor policies are covered.

\* "Sea-3 US Coast Guard Operating and Emergency Procedures Manual," covering operation of the marine transfer portion of the terminal as required by 33 CFR 127.

\* "Sea-3 Contingency Plan," covering responses by facility employees, the Newington Fire and Police Departments, and the US Coast Guard. Its purpose is to minimize the effects of an incident at the terminal and to provide protection for persons and property in the area. It includes plans for sounding an alarm, initial response, determination of need for additional assistance, flammable vapor control, firefighting, evacuation of personnel and nearby residents, mutual aid support and propane industry group response.

\* "Sea-3 Mooring Policy and Procedure Manual," covering the safe mooring of LPG carriers at the berth during cargo transfers.

\* "Sea-3 Facility Security Plan," covering security as required by the US Department of Homeland Security.

\* "Sea-3 Process Safety Management Manual," covering the elements of Process Safety Management, including employee participation, process safety information, process hazard analysis, operating procedures, training, contractor evaluation and training, truck driver (non-employee) evaluation and training, pre-startup safety reviews, equipment mechanical integrity, safe work permit system, management of change, incident investigation, and emergency preparedness.

#### 4. Five Year Accident History

In the five-year reporting period, there have been no propane or mercaptan releases that resulted in deaths, injuries, or significant property damage on site, or known offsite deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage.

#### 5. Emergency Response Program

Emergency planning and preparedness are covered in the "Sea-3 Contingency Plan," which details responses by facility employees, the Newington Fire and Police Departments, and the US Coast Guard. These agencies were involved in the development of the plan, which is available to all cognizant officials in the pamphlet "Sea-3 Emergency Procedures." The sections involving facility employees were developed by Sea-3 management in conjunction with the operating staff and outside consultants. All new employees are given initial training in operating and emergency procedures. Employees receive refresher training on an ongoing basis. This training is documented in accordance with the training records requirements of OSHA's Process Safety Management program and EPA's Risk Management Program.

In addition to the Sea-3 Emergency Procedures noted above, emergency response is also covered in the "Sea-3 US Coast Guard Operating and Emergency Procedures Manual." The US Coast Guard also maintains its own written operating and emergency plan, "Liquefied Petroleum Gas (LPG) Contingency Plan," issued by the USCG Marine Safety Office in Portland, Maine.

#### 6. Planned Changes to Improve Safety

The facility has been in operation since 1975. Safety reviews have been undertaken periodically since that time. Many recommendations arising from these reviews have been implemented through equipment and procedural changes.

The most recent review was a process hazard analysis (PHA) completed in April 2011. All issues identified during that review were dealt with by the end of that year. Sea-3 will update the PHA by April 2016 and will deal promptly with any recommended improvements that result from that review.



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**Sea-3, Inc.**

**Newington Marine Terminal**

**Process Hazard Analysis**

**2011 Update and Revalidation**

**Final Report**

**14 April 2011**

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## 1.0 Introduction

Sea-3, Inc. owns and operates a marine terminal on the Piscataqua River in Newington, NH for importing, storing and distributing Liquefied Petroleum Gas (LPG). The terminal has a storage capacity of 560,000 barrels (approximately 45,000 metric tons) of propane. The facility receives fully refrigerated LPG by ship and, very infrequently, ambient temperature LPG by rail. The product is shipped out in bulk by truck and rail.

The Newington terminal has been in operation since 1975. During this period, the safety record has been excellent. Reviews of operating safety have been conducted periodically since startup of the terminal. Many recommendations arising from these reviews have been incorporated through equipment and procedural changes.

A comprehensive review was conducted in 1994 and 1995 in accordance with the requirements of the Occupational Safety and Health Administration (OSHA) process safety management (PSM) rules at 29 CFR 1910.119. The results were reported in the *Initial Process Hazard Analysis, Final Report*, issued 6 October 1995. The Initial Process Hazard Analysis was updated and revalidated in 2001. The 2001 Process Hazard Analysis was updated and revalidated in 2006.

The regulations call for the initial PHA to be updated and revalidated at least every five years following its initial issue. This report represents the 2011 revalidation. All of the findings and recommendations of the 2006 update and revalidation team have either been instituted or addressed.

## 2.0 Summary

Sea-3 formed a team to update and revalidate the PHA for the Newington Marine Terminal. The team's deliberations are described below in *Section 3.0, Approach*. On March 17, 2011, the 2011 PHA update and revalidation team held an all day meeting in the conference room at the Sea-3 terminal in Newington

The 2011 PHA update and revalidation team included five delegates from Sea-3, two from management and three from the operating and maintenance staff. LGA Engineering provided one team member. The members of the 2011 PHA update and revalidation team were as follows:

- Paul Bogan, V.P., Operations
- John Mielke, Operations Manager
- Jay Griffin, Electrical Supervisor
- Tim McFaden, Operator
- Scott Sherman, Operator
- Neal Frangesh, LGA Engineering, Consulting Engineer

The experience and background of 2011 PHA update and revalidation team members is summarized in *Table 10.6, 2011 PHA Team Members*.

Using a rating system with three principal risk categories, the 2011 team found no hazards with the highest rating, two hazards of medium risk, and six hazards with a low risk rating. These hazards are tabulated in *Table 10.4, 2011 Risk Categorization of Hazards Considered*.

The 2011 PHA update and revalidation team concluded that the Sea-3 Newington Terminal continues to adhere to high standards of safe operation. Properly trained personnel who exercise a reasonable degree of caution in their daily work can expect to be exposed to very low levels of risk from process hazards.

### **3.0 Approach**

The methodology used in conducting the update and revalidation of the 2006 PHA report was primarily a series of reviews described below in Section 4.0. The 2011 team discussed changes to the plant made since 2006; accidents, incidents, and near misses since 2006; and the current status of the recommendations made by the 2006 PHA team.

In considering the process hazard aspect of items in the reviews, the 2011 team used the same "What-if/Checklist" method used for the initial PHA in 1994 and 1995 and for the subsequent PHA updates and revalidations in 2001 and 2006. This technique is one of the methodologies listed in the OSHA Process Safety Management regulations (29 CFR 1910.119) and the EPA Chemical Accident Prevention regulations (40 CFR 68). The checklist is shown in *Table 10.2, 2011 Checklist*.

During their meeting, the 2011 PHA team evaluated various hazards and assigned a relative risk rating to each in accordance with *Table 10.1, 2011 Risk Categorization Table*. The assigned categories reflect the team's collective judgment of the expected frequency and likely consequences of each hazard considered.

## **4.0 Reviews**

### **4.1 Review of Changes and Additions Since 2006 PHA**

During their meeting, the 2011 team considered the process hazard aspects of following changes and additions made to the terminal since the process hazard update and revalidation was conducted in 2006:

- Updated truck loading meters.
- Updated odorant system.
- Installation of new railcar unloading pumps.
- Addition of new boiler expansion tank.
- Addition of new hot water low flow switch.
- Addition of new drain and heating system at flare.
- Addition of new leak detection and ESD system at BA-01.

A summary of the team's discussions on and evaluation of each of these changes and additions are presented in the appropriate sections of this report.

#### **4.2 Review of Accidents, Incidents, and Near Misses Since 2006 PHA Update**

The 2011 PHA update and revalidation team reviewed the significant accidents, incidents, and near misses that occurred at Newington terminal since the 2006 PHA Update and Revalidation. The dates and descriptions of these five events are presented in *Table 10.3, Accidents, Incidents, and Near Misses, May 2006 to April 2011*. A summary of the team's discussion and assessment of each of these events is contained in the appropriate sections of this report.

#### **4.3 Review Status of 2006 PHA Recommendations**

The 2006 PHA team made six recommendations listed in *Table 10.7, 2011 Status of 2006 Recommendations*. The 2011 PHA update and revalidation team reviewed the current status of each of these recommendations.

### **5.0 Truck and Rail Operations**

#### **5.1 Installation of New Product Loading Metering System**

In 2008, Sea-3 installed a new product loading metering system. The old positive displacement product loading meters at the truck loading rack were replaced with new turbine meters. The new meters at truck loading skids A and B can also be used for railcar loading. This project also included the installation of a new product loading computer system.

The Sea-3 P&IDs and the truck loading operating procedures in the Sea-3 SOPM have been revised and updated as required to reflect the installation of the new meters and the new product loading computer system. All operators received appropriate training in the operation of the new product loading metering system and the new product loading computer system. A management of change (MOC) form is on file for this project. The 2011 PHA team found no new hazards associated with this project.

#### **5.2 Installation of New Odorization System**

In 2008, Sea-3 also installed a new odorization system. The new system includes two new positive displacement odorant pumps and new odorant injection metering and control units at each truck loading rack. The new hardware at truck loading skids A and B can also be used for railcar loading. The new odorization system automatically keeps track of the amount of odorant injected into each transport or railcar load of propane and prints this information on the bills of lading.

The old positive displacement meters, installed when the terminal was built in 1975, required frequent maintenance. Spare parts for these obsolete meters, meter stacks, and mechanical ticket printers were becoming difficult to find. The new odorant

injection system is more reliable than the old system, requires less maintenance than the old system, and has substantially reduced the frequency of odorant leaks.

The Sea-3 P&IDs and the truck loading operating procedures in the Sea-3 SOPM have been revised and updated as required to reflect the installation of the new odorization system. All operators received appropriate training in the operation of the new system. A management of change (MOC) form is on file for this project. The 2011 PHA team found no new hazards associated with this project.

### **5.3 Installation of New Railcar Unloading Pumps**

In 2008, Sea-3 installed two new positive displacement railcar unloading pumps near the existing railcar unloading compressors. Each of these pumps has a nominal capacity of 250 GPM. Both are driven by 30 HP motors.

The new railcar unloading pumps were installed to facilitate unloading railcars directly into transports at truck loading racks A and B. Prior to their installation, product received by railcar had to be unloaded into the Day Tank, BA-01, before being loaded onto transports. Product received by railcar may be odorized or unodorized. The new railcar unloading pumps can be used to unload odorized railcars directly into transports.

The Sea-3 P&IDs have been revised as required to reflect the installation and the new railcar unloading pumps. The railcar unloading procedures and the truck loading procedures in the Sea-3 SOPM have been revised to reflect the installation of the new pumps. Training will be done and documented when railcars become available to train personnel. A management of change (MOC) form is on file for this project.

The 2011 PHA team reviewed the possible hazards associated with the installation of the new railcar unloading pumps. The team recognized the possibility of shaft seal leaks and recommended that appropriate revisions be made to the Sea-3 Electrical Area Classification drawing. The team assigned a hazard rating of C-LL to the possibility of railcar unloading pump shaft seal leaks.

The team also recognized that valve lineup required prior to using the railcar unloading pumps will be new to most of the operators and needs to be carefully documented. The team recommended that the operators be given appropriate training before the railcar unloading pumps are placed in operation. The team assigned a hazard rating of C-LL to the possibility of improper valve lineup when using the railcar unloading pumps.

### **5.4 Transport Wheel Chocks**

The 2011 team reviewed the hazards associated with transport wheel chocks. Over the years, Sea-3 has tried several different types of chocks. Metal chocks sometimes created sparking hazards. Plastic chocks were too fragile. The 2006 team assigned a Risk Assessment of B-HL to these hazards and recommended that rubber chocks be purchased to eliminate the spark hazards and reduce the personnel hazards. This recommendation was implemented.

The use of rubber chocks has not eliminated all tripping hazards. Since the rubber chocks are very heavy, the drivers sometimes leave the chocks on the pavement rather than placing them on the truck loading islands thus creating tripping hazards. In 2008, a transport driver tripped over a wheel chock, fell, and was taken to the hospital.

The 2011 team recommended posting signs at the driver's window reminding the drivers not to leave the chocks on the pavement. The 2011 team also recommended considering the installation of hooks that could be used to hang up the chocks.

## **5.5 Lighting at the Transport Unloading Station**

In Section 4.1.3 of their report, the 2006 team considered the question of adequate lighting at the truck unloading station but did not assign a risk assessment to this concern.

The 2011 team revisited the question of adequate lighting at the transport unloading station. After a brief discussion, the 2011 team decided that the lighting at the truck unloading station was adequate and did not assign a hazard rating to this concern.

## **6.0 Marine Operations**

### **6.1 USCG Approved Floatation Suit**

The 2006 PHA team noted that the USCG approved floatation (survival) suit was not being worn as required in the Sea-3 Safety Standards and Procedures Manual (SOPM), Chapter 8, Section 8.7, *Water Survival Work Vests and Coveralls*. The 2006 team assigned a Risk Assessment of C-LM to this hazard and recommended that the employee in charge of any operation taking place on the berth require all employees to adhere to the procedure in the SOPM.

The 2011 PHA team reviewed the text of Section 8.7 of the SOPM and recommended that the text of Section 8.7 be revised to clarify exactly when employees involved in operations on the berth are required to wear the flotation (survival) suits. The 2011 team did not change the Risk Assessment of C-LM.

### **6.2 Vessel Unloading Hoses Connect/Disconnect**

The 2006 PHA team investigated the hazards and risks of connecting both the twelve (12) inch liquid and eight (8) inch vapor hoses to the vessel manifold. The double braided (wrapped) stainless steel corrugated wire hoses are heavy and difficult to handle. A crane is used to lift the hoses to the vessel main deck but the hoses still require a certain amount of "man handling" to make the connection. The team assigned a Risk Assessment rating of C-LM to this hazard. The 2006 team recommended that Sea-3 investigate other mechanical means, come-a-longs, straps, etc., to make this operation safer and to lower the risk to employees.



The 2011 PHA team reviewed the circumstances that resulted in a near miss in early 2011 while hooking up the unloading hoses. Due to an apparent operator error, the liquid valve at the dock, RP-002, and vapor valve at the berth, RB-021, were left open during the cooldown of the liquid unloading line. This resulted in a release of vapor when the operators loosened the blind flange on the end of the vapor hose. Since there were no injuries during this incident and this was the first time in 35 years that an incident like this occurred, the 2011 team assigned a Risk Assessment rating of C-LL to this hazard.

To prevent any similar incidents in the future, Sea-3 modified their vessel receipt checklist to include additional steps requiring the person in charge (PIC) of the unloading to verify that RP-002 and RB-021 are in the correct position: (1) Before the hoses are connected when ship arrives and, (2) Before the hoses are disconnected when the unloading is complete. The PIC is required to initial the vessel receipt checklist at each of these verifications.

## **7.0 Pressure Storage and Refrigerated Liquid Transfer Operations**

### **7.1 Addition of New Hot Water Low Flow Switch**

Propane Heaters EA-01 and EA-01A are used to heat refrigerated propane liquid from approximately -44°F to +40°F before it is sent to the Day Tank, BA-01. Under normal operating conditions, EA-01A is in service. EA-01 is the standby exchanger and is normally out of service. The heating medium is hot water from Boilers HWB-1 and HWB-2. The propane flows thru the tube side of these heat exchangers. The hot water flows thru the shell side.

A near miss occurred in 2009 when hot water circulation thru EA-01A was lost when the coupling on Hot Water Pump HWP-1 failed. This resulted in freezing of the water in the shell side of EA-01A before the heating system shut down. Fortunately, there was no damage to the heat exchanger and there was no release of propane vapor or hot water. EA-01A was subsequently taken out of service, inspected, and tested before being returned to service.

This incident had the potential for a propane release. The pressure of the propane in the tubes is substantially higher than the pressure of the hot water in the shell. If one or more of the tubes in the heat exchanger had been crushed, damaged, or broken by the ice, there is a possibility that liquid propane could have flowed into the shell side of the exchanger and vaporized. The resulting increase in the shell side pressure could have caused the shell side relief valve, SV-016A,  $\frac{3}{4}$ " X  $\frac{3}{4}$ ", set at 55 PSIG, to lift and discharge propane to the atmosphere near the exchanger. If the propane vaporization rate exceeded the capacity of SV-016A, the pressure increase in the hot water system could have lifted one or more of the boiler relief valves, set at 60 and 66 PSIG, releasing hot water and propane vapor at grade behind the boiler room. The 2011 PHA team assigned a Risk Assessment Rating of B-MM to this potential hazard.

To prevent a future reoccurrence of this problem, Sea-3 installed a low hot water flow switch in the common hot water outlet line from EA-01A and EA-01. This new switch will shutdown the propane heating system on the loss of hot water flow to either propane heater.

## **7.2 Revised Procedure for Switching to Standby Product Heater**

Another near miss occurred following the freeze up of EA-01A when the operators were taking EA-01A out of service and placing EA-01 into service. The spectacle blind downstream of the EA-01 hot water inlet valve, RV-165, and the spectacle blind upstream of the EA-01 water outlet valve, RV-166 were removed. The propane outlet valve to EA-01, RB-047, was still closed at this time. The operators then opened RV-165 and RV-166 to establish hot water flow through EA-01. As soon as these valves were opened the hot water circulating through EA-01 caused extremely rapid heating and thermal expansion of the liquid propane in the tube side of EA-01. The liquid thermal expansion rate of the liquid propane trapped in the tube side of the exchanger far exceeded the capacity of the tube side thermal relief valve, SV-043. The resulting severe overpressure caused propane liquid to spray out of the gasket on the tube side of the tube sheet. Fortunately, there were no personal injuries and there was no ignition of the escaping propane. The 2011 PHA team assigned a Risk Assessment Rating of B-MM to this potential hazard.

To prevent a future reoccurrence of this problem, Sea-3 made following changes:

- In the future, the propane outlet valves on both propane heaters, RB-047 and RB-047A, will be car sealed open (CSO). This will eliminate the possibility of trapping liquid propane in the tube side of the exchangers.
- The spectacle blinds at RV-165 and RV-166 were removed and both of these valves will be left open and the standby heater, EA-01, will remain warm while out of service.
- Sea-3 will develop a new written procedure for switching to standby product heater. All operating and maintenance personnel will be given the required training in the use of this new procedure.

## **7.3 Installation of New Boiler Expansion Tank**

In 2008, Sea-3 installed a new boiler expansion tank, BA-025A. The additional expansion volume provided by this tank will permit the boilers to be operated at slightly higher pressures thus increasing the NPSH available to Hot Water Circulation Pump HWP-1. This was an operational improvement. The 2011 PHA team agreed that the addition of BA-025A did not create any new hazards.

## 7.4 Installation of New Gas Detection and ESD System at BA-01

In 2010, Sea-3 installed a new gas detection and ESD system at the Day Tank, BA-01, to comply with the 2008 Edition of NFPA 58. This second and independent system was installed to provide additional protection against liquid propane leaks at or near BA-01. The 2011 PHA team agreed that the addition of BA-025A did not change any of the hazard ratings for BA-01 and the Product Loading Pumps.

## 8.0 Maintenance Operations and Plant Systems

### 8.1 Firewater Pump House and Valve Pit

The 2006 PHA team noted that the firewater pump house and the valve pit present confined space hazards. Warning signs reading "*Danger, Confined Space, Authorized Personnel Only*" are posted at the entrances to these spaces. An employee can slip and/or fall while going into or climbing out of these pits. He could also be trapped if a fire broke out or other incident occurred. The Newington Fire Department would be called to handle any confined space rescue operations. The 2006 team did not change the assigned Risk Assessment of C-LM.

Current Sea-3 procedures require that two (2) men to be present, one (1) in the pit and one (1) outside the pit, when any work is being done in these pits and that the Control Room be notified when work is taking place in these pits.

Sea-3 maintenance procedures require weekly preventive maintenance in the firewater pump house. The entrance to the pump house is thru a relatively small hatch in the roof and a vertical ladder built into the north wall of the pump house. In March of 2011, one of Sea-3's maintenance personnel was injured when he fell off of the ladder, hit his head, and was taken to the hospital. Subsequent to this accident Sea-3 coated the ladder rungs with non-slip material.

### 8.2 Safe Use of Ladders

In 2008, a Sea-3 operator fell off of an extension ladder in the compressor room while painting a sprinkler line near the ceiling. The operator was not seriously injured. This was not a lost time accident.

The 2011 PHA team assigned a Risk Assessment rating of C-LL to the hazards associated with the use of ladders and recommended that Sea-3 check the OSHA regulations and schedule appropriate ladder safety training for operating and maintenance personnel.

### 8.3 Installation of New Drain and Heating System at Flare

During a routine valve check in the winter of 2010-2011, Sea-3 maintenance personnel discovered that the flare valve, RP-197, was frozen shut due to ice accumulation on the downstream side of the valve. To free the valve, heat was applied to outside of the

pipe upstream and downstream of the valve. After the ice inside of the pipe had melted, RP-197 was opened to blow the water out of the pipe. This was the first time in 35 years that an incident like this occurred,

To prevent future similar incidents, Sea-3 installed an electrical heating system and insulation on the pipe and a drain valve downstream of RP-197. The 2011 PHA team assigned a Risk Assessment rating of C-LL to the possibility RP-197 being frozen shut due to ice accumulation inside the pipe.

## 9.0 Conclusions and Recommendations

The 2011 PHA update and revalidation team categorized eight situations considered to be process hazards. They are listed in *Table 10.4, 2011 Risk Categorization of Hazards Considered*.

The 2011 team made six recommendations for consideration by Sea-3's management. These recommendations are listed in *Table 10.6, 2011 PHA Recommendations*.

The 2011 PHA team concluded that the Sea-3 Newington Marine Terminal continues to adhere to high standards of safe operation, and that it can be expected to continue to do so. Properly trained personnel who exercise a reasonable degree of caution in their daily work can expect to be exposed to very low levels of risk from process hazards.

TABLE 10.1

## 2011 RISK CATEGORIZATION TABLE

FREQUENCY ↓	CONSEQUENCES		
	LOW: minor injury	MEDIUM: serious injury; hospitalization	HIGH: fatality, disability, multiple injuries
LOW: once in 100 years	Category <b>C</b>	Category <b>C</b>	Category <b>B</b>
MEDIUM: once in 10 years	Category <b>C</b>	Category <b>B</b>	Category <b>A</b>
HIGH: once per year	Category <b>B</b>	Category <b>A</b>	Category <b>A</b>

**RISK = FREQUENCY X CONSEQUENCES**

Hazards in category A occur more frequently and result in more serious consequences than hazards in categories B and C. Category C hazards include minor incidents expected to occur less frequently than those in category B. The three categories can also be interpreted as follows:

- **Category A:**  
Includes risks meeting OSHA's "catastrophic consequences in the workplace" test [see 29 CFR 1910.119 (e)(3)(ii)].
- **Category B:**  
Includes risks which the owner/employer should try to find reasonable means for reducing the risk by mitigating the consequences, reducing the probable frequency, or both.
- **Category C:**  
Includes risks which can be controlled by normal good workplace practices.

**TABLE 10.2**  
**2011 CHECKLIST**

**1. Hazards of the process**

- Fire hazards
- Hazards of cold liquid leaks or spills
- Falling, tripping, collision, or mechanical hazards
- Electric shock hazards
- Toxic chemical hazards
- Asphyxiation hazards

**2. Previous incidents** ("The identification of any previous incident which had a likely potential for catastrophic consequences in the workplace.")

- Fires
- Leaks and spills
- Personal injuries
- Close calls

**3. System Controls** ("Engineering and administrative controls applicable to the hazards and their interrelationships such as appropriate application of detection methodologies to provide early warning of releases. e.g., process monitoring, control instrumentation with alarms, and detector hardware ...")

- Process controls
- Combustible vapor and fire detectors
- Alarms, warnings, and communication
- Procedures, standards, and response plans

**4. Consequences of failure of engineering and administrative controls**

- Process controls
- Combustible vapor and fire detectors
- Alarms, warnings, and communication
- Procedures, standards, and response plans

## 5. Facility Siting

- Spill flow paths and impoundment design
- Effect of equipment layout on potential for incident escalation
- Ignition source distances
- Access and escape routes
- Piping and equipment vulnerability to vehicles, tank cars, or vessels
- Fire mains, hydrants, and fixed protection systems

## 6 Human Factors

- Errors of commission or omission by employees
- Errors of commission or omission by contractors
- Errors of commission or omission by third parties (drivers; rail personnel; ship crew; pilots; tug crews; regulatory officials; neighboring facility staff)
- Communication within plant and with third parties

## 7 Safety and Health Effects (A qualitative evaluation of a range of the possible safety and health effects of failure of controls on employees in the workplace.

- Frequency (likelihood) of incident
- Severity (consequences) of incident

**TABLE 10.3**  
**ACCIDENTS, INCIDENTS, AND NEAR MISSES**  
**MAY 2006 TO MARCH 2011**

Section	Description	Date
5.4	Accident. Transport driver tripped over a wheel chock, fell, and was taken to the hospital.	2008
6.2	Near miss. Due to an apparent operator error, the liquid valve at the dock, RP-002, and vapor valve at the berth, RB-021, were left open during the cooldown of the liquid unloading line. This resulted in a release of vapor. No personnel injuries.	2011
7.2	Near miss. Hot water circulating through EA-01 caused rapid thermal expansion of the liquid propane trapped in the tube side of EA-01. The resulting severe overpressure caused propane liquid to spray out of the gasket on the tube side of the tube sheet. No personal injuries.	2009
7.1	Near miss. Hot water circulation thru EA-01A was lost when the coupling on Hot Water Pump HWP-1 failed. This resulted in freezing of the water in the shell side of EA-01A.	2009
8.1	Accident. Maintenance technician injured when he fell off of the ladder in the firewater pump house, hit his head, and was taken to the hospital.	2011
8.2	Accident. Operator fell off of an extension ladder in the compressor room while painting a sprinkler line near the ceiling. No seriously injury. Not a lost time accident.	2008

**Note:**

1. Numbers in the Section column refer to the section of the 2011 PHA report in which the accident, incident, or near miss is discussed.



TABLE 10.4

## 2011 RISK CATEGORIZATION OF HAZARDS CONSIDERED

Report Section	Hazard Considered	Risk Category
5.3	Railcar unloading pump shaft seal leaks.	C-LL
5.3	Improper valve lineup when using the railcar unloading pumps for transport loading.	C-LL
6.1	Failure to wear the flotation (survival) suits when involved in operations on the berth.	C-LM
6.2	Vapor releases when connecting or disconnecting ship unloading hoses.	C-LL
7.1	Loss of hot water flow through Propane Heater EA-01A or Propane Heater EA-01.	B-MM
7.2	Incorrect valve positioning when switching between Propane Heater EA-01A and Propane Heater EA-01.	B-MM
8.2	Falls from ladders due to failure to observe proper ladder safety procedures.	C-LL
8.3	Flare valve RP-197 freezing shut due to ice accumulation inside the pipe.	C-LL

**Note:**

1. Numbers in the Report Section column refer to the section of the 2011 PHA report in which the hazard was considered.

**TABLE 10.5****2011 PHA TEAM MEMBERS****Paul Bogan, V. P., Operations**

Mr. Bogan supervised operation of shipboard liquefied oxygen and nitrogen plants in the U. S. Navy. He holds an Associate degree in mechanical engineering from Wentworth Institute and has studied at Northeastern University. He served as supervisor on board the LNG (liquefied natural gas) barge *Massachusetts* and worked in LNG operations at the Distrigas of Massachusetts, Everett LNG import terminal. He served as the terminal manager of the Sea-3 Newington terminal since it began operations in 1975 until he assumed responsibility for all of Sea-3's operations in 1997. Mr. Bogan has served on the National Fire Protection Association's Technical Committee on Liquefied Petroleum Gases since 1988. That group sets safety standards for LPG storage and handling in the United States, which are frequently adopted by other nations for safety standards. Mr. Bogan is also an instructor at the Massachusetts Firefighting Academy.

**John Mielke, Operations Manager**

As a qualified engineering department nuclear submariner, Mr. Mielke supervised nuclear propulsion power plants in the nuclear navy. He has over 30 years experience in all phases of maintenance. He worked in operations and maintenance functions at the Distrigas of Massachusetts, Everett LNG import terminal. He served as maintenance supervisor of the Sea-3 Newington terminal since it began operation in 1975, until he assumed the operations manager position in 1997.

**Jay Griffin, Electrical Supervisor**

Mr. Griffin has served as the electrical supervisor of the Sea-3 Newington Terminal maintenance department since he was hired in 1997. Prior to that he worked as a licensed Master Electrician at Regan Electrical Corp, Portsmouth, NH for 16 years and still maintains his license. He has over 24 years experience in electrical maintenance.

**Tim McFaden, Operator**

Mr. McFaden attended Worcester State College where he pursued a business degree. He worked in the hazardous waste industry where some of his duties included job site supervision and assessing site risk. He has held a CDL-A license for twenty-three (23) years. He has worked in the propane industry for fifteen (15) years the last eleven (11) of which have been with Sea-3 as a plant operator.

**Scott Sherman, Operator**

Mr. Sherman served 4 years in the US Air force. He went to Aircraft Refueling Systems School at Chanute AFB, Illinois and was later stationed at Pease AFB with the 509<sup>th</sup> Bombardment Wing, servicing KC-135's and FB-111's. After honorable Air Force service he was employed by Metro North Commuter Railroad in the Structures Dept. in New York for 2 years before moving back to the Seacoast of NH. He was employed by Sprague Energy in the Operations Dept. for 6 years. After Sprague, he was hired by Sea-3 in 2000 and has worked for Sea-3 for 11 years.

**Neal Frangesh, LGA Engineering, Consulting Engineer**

Mr. Frangesh is a consulting engineer (B.S., M.S., Penn State) whose experience includes engineering for Exxon, the Distrigas Everett and Staten Island LNG import terminals, construction and startup of the LNG barge Massachusetts, and consulting experience at many liquefied gas facilities. He served as Sea-3's field engineer during the construction and startup of the Newington terminal and has been involved in most of the upgrade projects at the plant.

**TABLE 10.6**  
**2011 PHA RECOMMENDATIONS**

<b>Section</b>	<b>2011 Recommendation</b>	<b>Current Status</b>
5.3	Revise the Electrical Area Classification drawing as required to recognize the possibility of railcar unloading pump shaft seal leaks.	Completed
5.3	Provide appropriate training to operators before the new railcar unloading pumps are placed in operation.	Pending
5.4	Post signs at the driver's window reminding the drivers not to leave transport wheel chocks on the pavement.	Pending
5.4	Consider the installation of hooks that could be used to hang up the transport wheel chocks.	Pending
6.1	Revise Section 8.7 of the SOPM to clarify exactly when employees involved in operations on the berth are required to wear the flotation (survival) suits.	Completed
8.2	Check OSHA ladder safety regulations and schedule appropriate ladder safety training for operating and maintenance personnel.	Pending

**Note:**

1. Numbers in the Section column refer to the section of the 2011 PHA report in which the recommendation was made.

## 2011 PHA UPDATE AND REVALIDATION

TABLE 10.7

## 2011 STATUS OF 2006 RECOMMENDATIONS

Section	2006 Recommendation	2011 Status
4.1.1	Install a set of stairs at the end of the pump platform for better access.	Completed.
4.1.2	Purchase rubberized chocks to eliminate spark hazard and reduce personnel hazards.	Completed.
4.1.3	Consider improved lighting in the truck loading area.	Reconsidered by 2011 PHA team.
5.1	The employee in charge of any operation on the dock berth will require all employees to adhere to Sea-3 policy regarding wearing of USCG water survival suits.	Completed.
5.2	Investigate means to reduce risk to employees while connecting and disconnecting ship liquid and vapor hoses at the berth.	Completed.
13.0	Implement procedure to require two (2) men to be present, one (1) in the pit and one outside when work is being done in the fire water pump house or the valve pit.	Completed.

**Notes:**

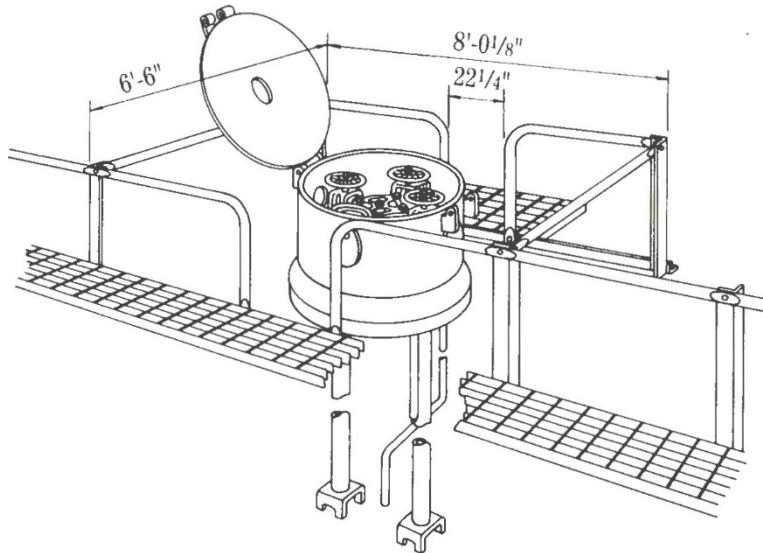
1. Numbers in the Section column refer to the section of the 2006 PHA report in which the recommendation was made.
2. Comments in the 2011 Status column reflect the 2011 status of the 2006 recommendations as of March 2011.



# 33,500 GALLON CAPACITY – NON-INSULATED – THERMAL PROTECTED

DOT-II2J340W

For Liquefied Petroleum Gas & Anhydrous Ammonia Service



## CAPACITY & WEIGHTS

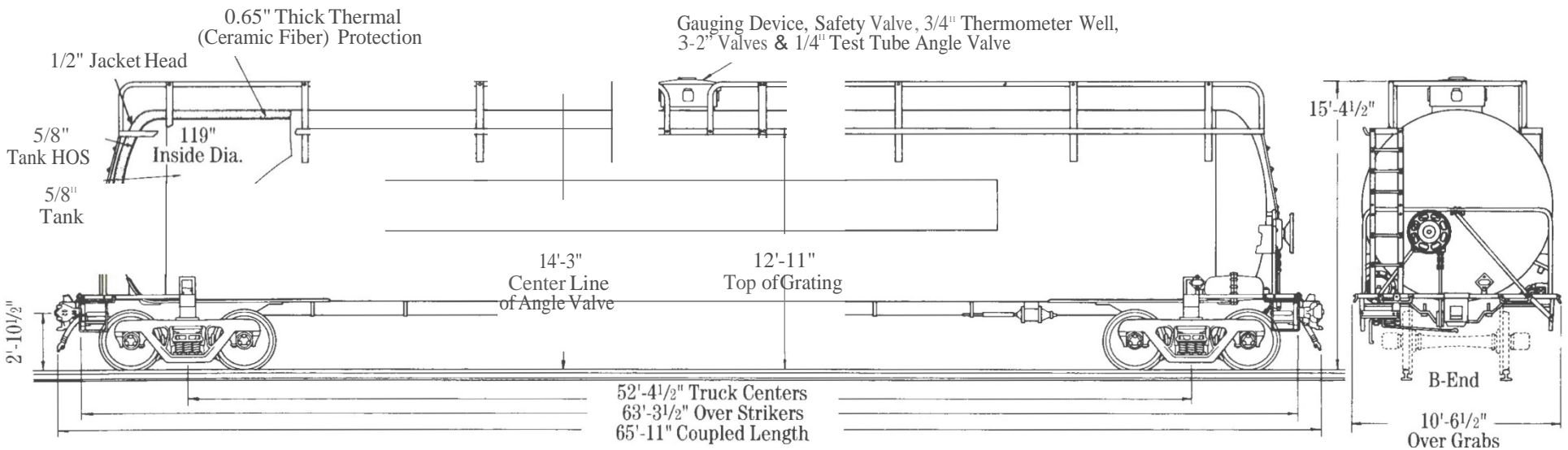
Nominal Capacity @ 58.28% Filling Density - 33,500 gals.

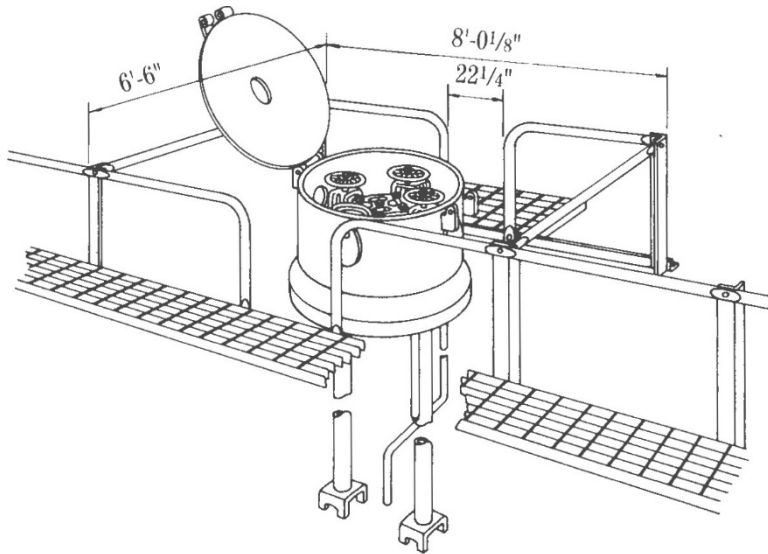
Estimated Light Weight - 99,500 lbs.

Rail Load Limit (100Ton Trucks) (5'-10" Wheel Base) - 263,000 lbs.

## COMMODITY MAXIMUM DENSITY

Truck Cpty.	Wheel Base	Commodity Density
100Ton	5'-10"	58.28% Max Fill Density



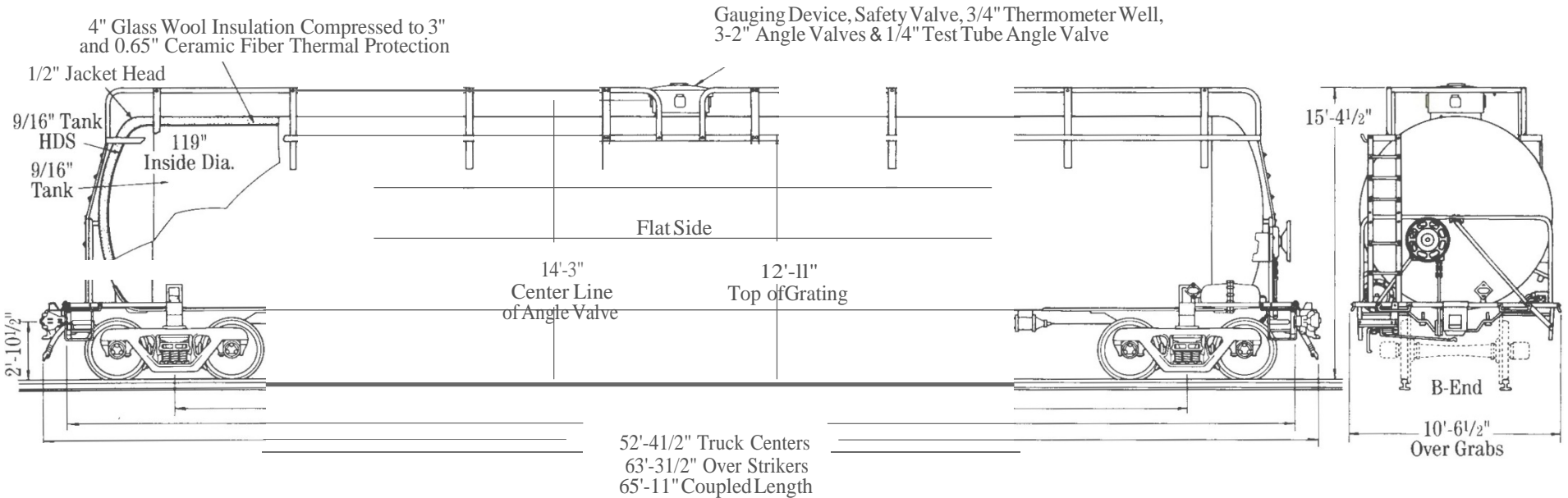


**CAPACITY & WEIGHTS**

Nominal Capacity @ 59.6/57% Filling Density – 33,500 gals.  
 Estimated Light Weight – 95,800 lbs.  
 Rail Load Limit (100Ton Trucks) (5'-10" Wheel Base) -263,000lbs.

**COMMODITY MAXIMUM DENSITY**

Truck Cpty.	Wheel Base	Commodity Density
100Ton	5'-10"	59.6%/57% Max Fill Density



DOT-105J300W

For Liquefied Petroleum Gas & Anhydrous Ammonia Service

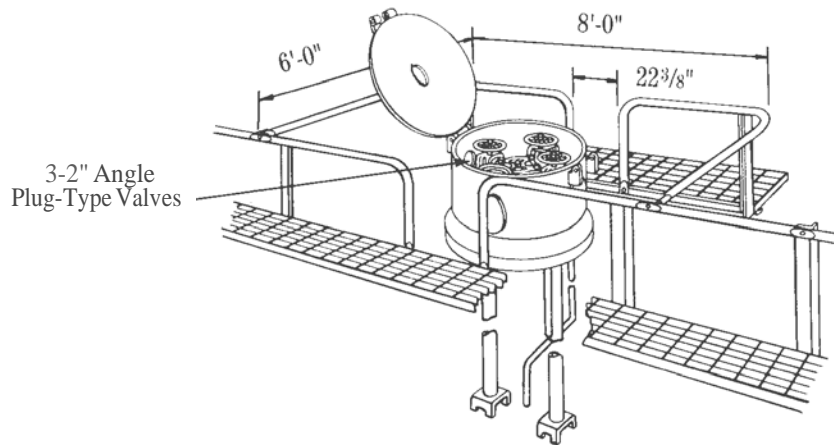
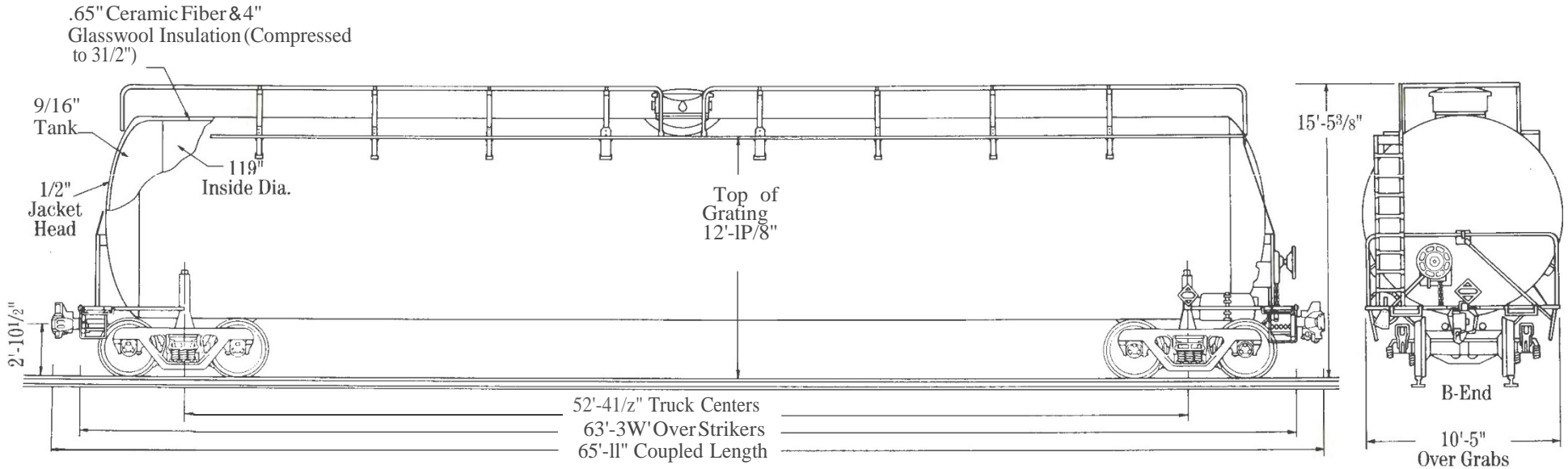
**33,687 GALLON CAPACITY - INSULATED**



**33,687 GALLON CAPACITY - INSULATED**

DOT-105J300W

For Liquefied Petroleum Gas, Anhydrous Ammonia,  
Propane & Butane Service



**CAPACITY & WEIGHTS**

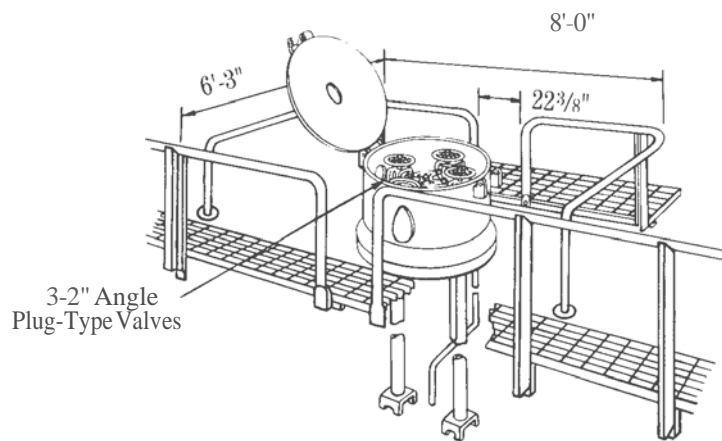
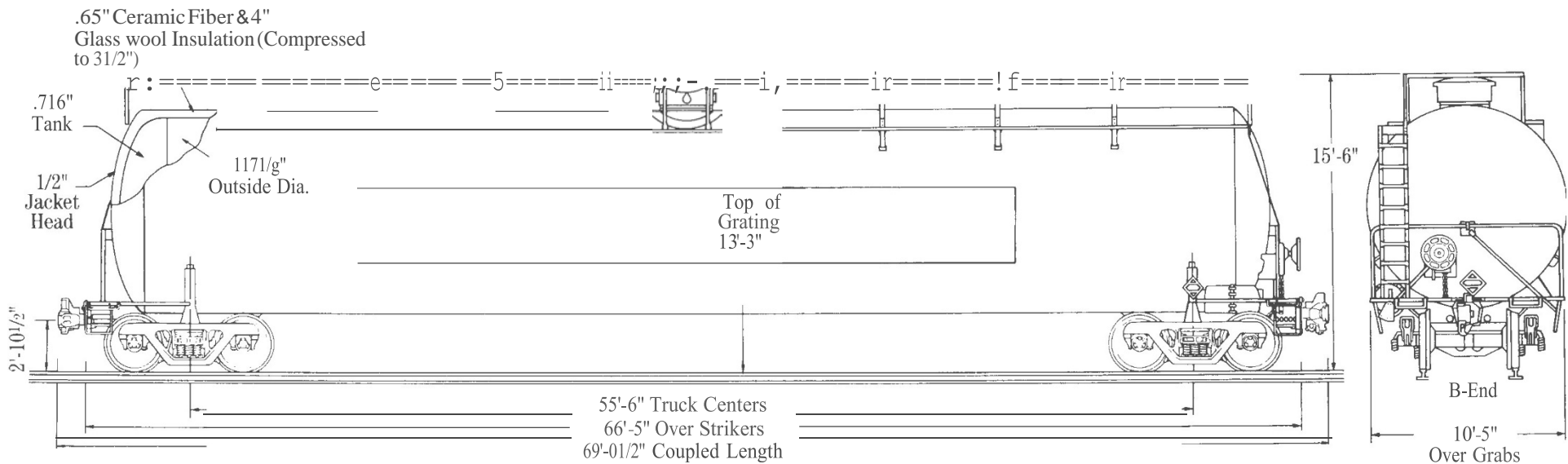
Net Capacity – 33,687 gals.

Estimated Light Weight – 95,800 lbs.

Rail Load Limit (100 Ton Trucks) – 263,000 lbs.

**COMMODITY MAXIMUM DENSITY**

Truck Cpty.	Wheel Base	Commodity Density
100Ton	5'-10"	59.6% Max Fill Density



**CAPACITY & WEIGHTS**

Net Capacity – 33,565 gals.  
 Estimated Light Weight - 109,800lbs.  
 Rail Load Limit (100 Ton Trucks) – 263,000 lbs.

**COMMODITY MAXIMUM DENSITY**

Truck Cpty.	Wheel Base	Commodity Density
100 Ton	5'-10"	54.8% Max Fill Density

DOT-105J400W

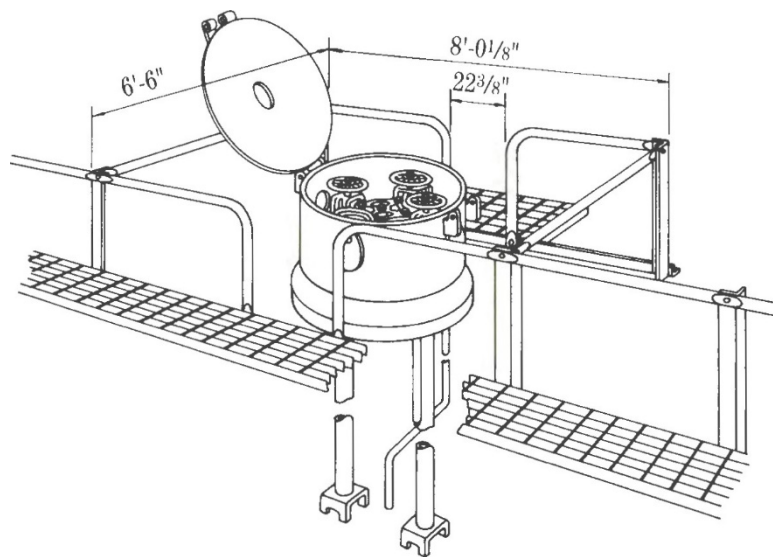
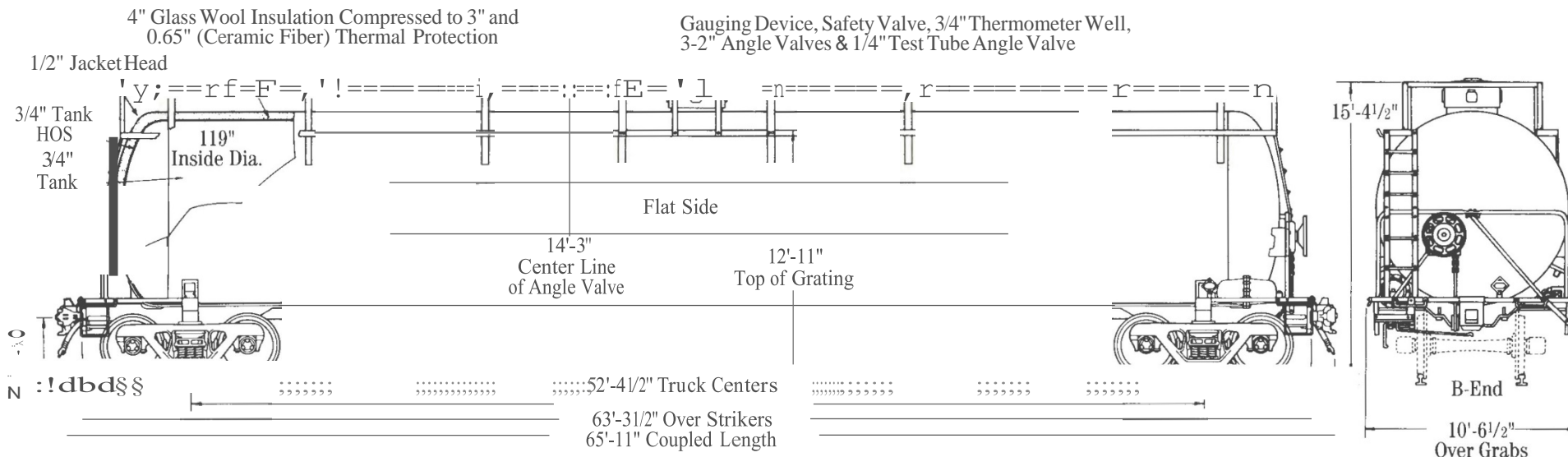
For Liquefied Petroleum Gas & Propylene Service

**33,565 GALLON CAPACITY - INSULATED**

**33,687 GALLON CAPACITY - INSULATED**

DOT-105J400W

For Liquefied Petroleum Gas & Propylene Service



**COMMODITY MAXIMUM DENSITY**

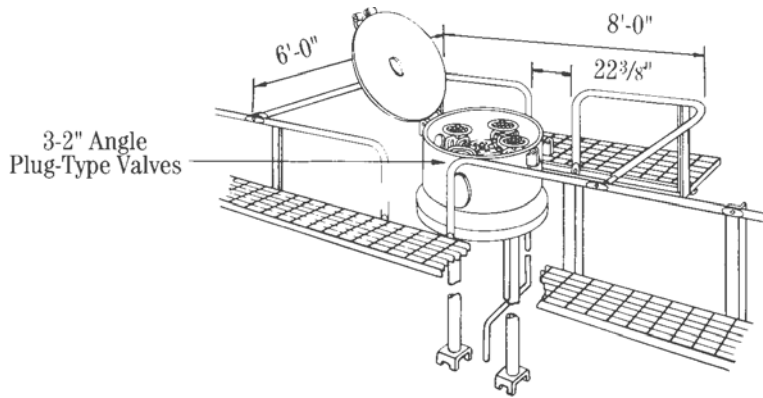
Truck Cpty.	Wheel Base	Commodity Density
100 Ton	5'-10"	54.81% Max Fill Density

**CAPACITY & WEIGHTS**

Nominal Capacity @ 14% Filling Density – 33,500 gals.

Estimated Light Weight – 111,100 lbs.

Rail Load Limit (100 Ton Trucks) (5'-10" Wheel Base) – 263,000 lbs.



**CAPACITY & WEIGHTS**

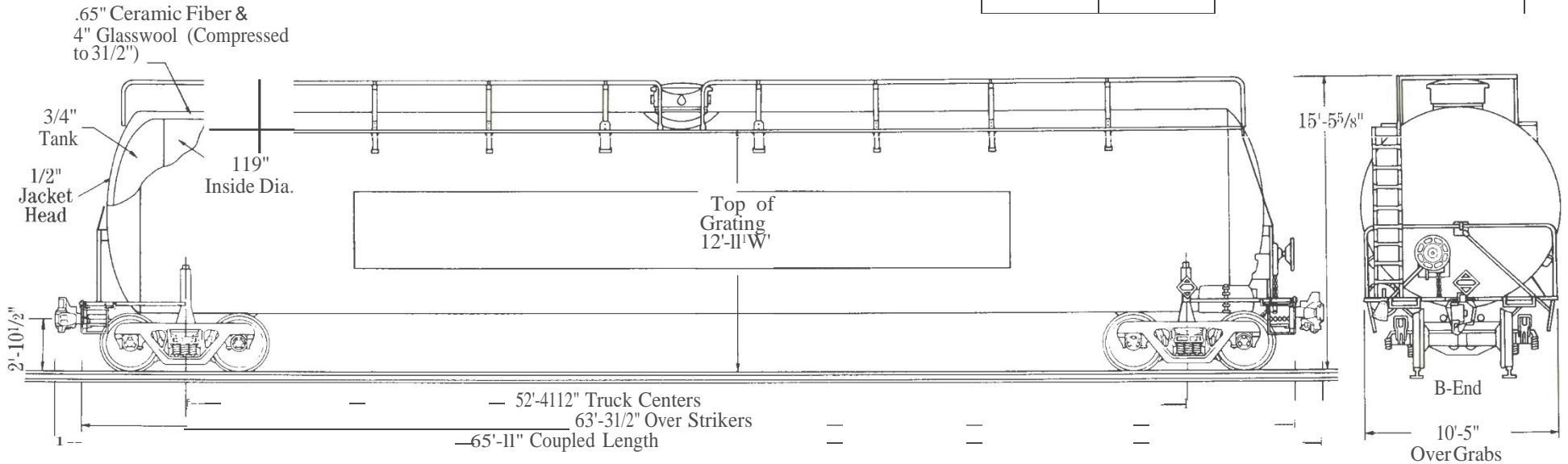
Net Capacity @ 2% Outage – 33,687 gals.

Estimated Light Weight – 111,100 lbs.

Rail Load Limit (100 Ton Trucks) – 263,000 lbs.

**COMMODITY MAXIMUM DENSITY**

Truck Cpty.	Wheel Base	Commodity Density
100Ton	5'-10"	54.143% Max Density



DOT-105J400W

For Liquified Petroleum Gas, Propylene & Anhydrous Ammonia Service

**33,687 GALLON CAPACITY - INSULATED**

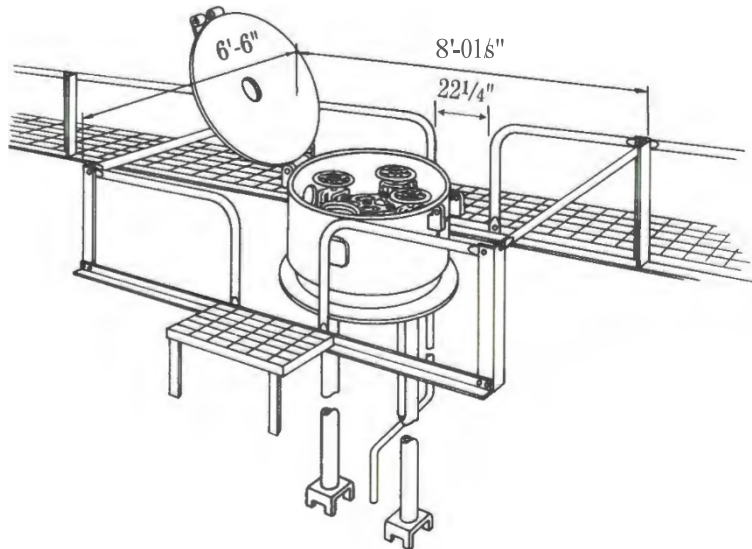
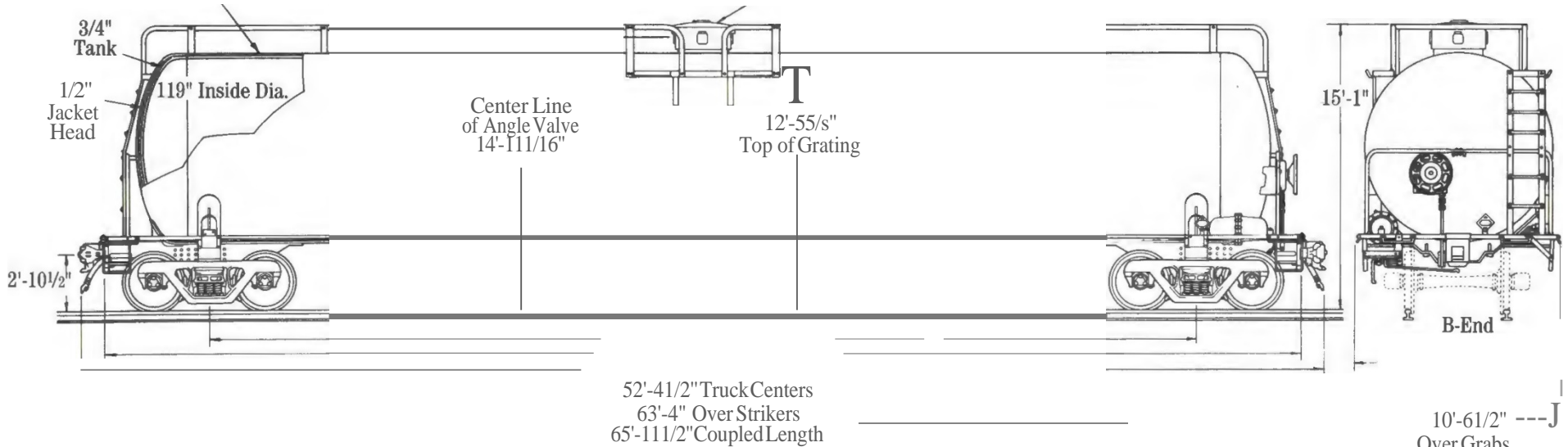
**-33,500 GALLON CAPACITY - NON-INSULATED - THERMAL PROTECTED**

DOT-112J400W

For Propylene, Liquefied Petroleum Gas & Anhydrous Ammonia Service

0.65" (Ceramic Fiber) Thermal Protection and 1/8" Metal Jacket

Gauging Device Safety Valve, 3-2" Angle Valves, 1/4" Test Tube: K'igie Valve & 3/4" Thermometer Well



**CAPACITY & WEIGHTS**

Nominal Capacity @ 54.12% Filling Density- 33,500 gals.

Estimated Light Weight - 112,000 lbs.

Rail Load Limit (100 Ton Trucks) (5'-10" Wheel Base) – 263,000 lbs.

**COMMODITY MAXIMUM DENSITY**

Truck Cpty.	Wheel Base	Commodity Density
100 Ton	5'-10"	54.64% Max Fill Density



# Hazardous Materials Incident Report

U.S. Department of Transportation  
Research and Special Programs  
Administration

Form Approval OMB No. 3137-0039

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 2137-0039. The filling out of this information is mandatory and will take 96 minutes to complete.

## INSTRUCTIONS

Submit this report to the Information Systems Manager, U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration, Office of Hazardous Materials Safety, DHM-63, Washington, D.C. 20590-0001. If space provided for any item is inadequate, use a separate sheet of paper, identifying the entry number being completed. Copies of this form and instructions can be obtained from the Office of Hazardous Materials Website at <http://hazmat.dot.gov>. If you have any questions, you can contact the Hazardous Materials Information Center at 1-800-HMR-4922 (1-800-467-4922) or online at <http://hazmat.dot.gov>.

## PART I - REPORT TYPE

1. **Incident Id:** I-2008080289
2. **This is to report:** Hazardous Material Incident

## PART II - GENERAL INCIDENT INFORMATION

3. **Date of Incident:** 07/21/2008
4. **Time of Incident (use 24-hour time):** 09:28
5. **Enter National Response Center Report Number (if applicable):**
6. **If you submitted a report to another Federal DOT agency, enter the agency and report number:**
7. **Location of Incident:**  
 City: DEERFIELD  
 County: FRANKLIN  
 State: MA  
 Zip Code: (if known): 01342  
 Street Address/Mile Marker/Yard Name/Airport/Body of Water/River Mile:  
 EAST DEERFIELD YARD, TRACK #15
8. **Mode of Transportation:** FRA-RAILWAY
9. **Transportation Phase:** IN TRANSIT
10. **Carrier/Reporter:**  
 Name: PAN AM RAILWAYS INC  
 Street: 1700 IRON HORSE PARK  
 City: NORTH BILLERICA  
 State: MA  
 Zip Code: 01862-1641  
 Federal DOT Id Number: 347917      Hazmat Registration Number: 060908006004Q
11. **Shipper/Offeror:**  
 Name: AMERIGAS PROPANE, L.P.  
 Street: 11450 COMPAQ CTR W  
 City: HOUSTON  
 State: TX  
 Zip Code: 77070-1445  
 Waybill/Shipping Paper: 13943      Hazmat Registration Number:
12. **Origin (if different from shipper address)**  
 City: SOUTHLINGTON  
 State: CT  
 Zip Code: 06489
13. **Destination:**  
 City: Sarnia  
 State: ZZ  
 Zip Code: N7T749



Shell Thickness: .603 (if Tank Car, CTMV, Portable Tank)  
 Head Thickness: .603 (if Tank Car, CTMV)  
 Service Pressure: (if Cylinder)  
 If valve or device failed: NO  
 Type: VAPOR VALVE  
 Model:  
 Manufacturer:

**29. If the packaging is for Radioactive Materials, complete the following:**

Packaging Category:  
 Packaging Certification:  
 Certification Number:  
 Nuclide(s) Present: Transport Index:  
 Activity:  
 Critical Safety Index:

**PART IV - CONSEQUENCES**

**30. Result of Incident (check all that apply):**

- Spillage: NO
- Explosion: NO
- Vapor (Gas) Dispersion: YES
- No Release: NO
- Fire: NO
- Material Entered Waterway/Storm Sewer: NO
- Environmental Damage: NO

**31. Emergency Response: The following entities responded to the incident: (Check all that apply)**

Fire/EMS Report #: YES  
 Police Report #: NO  
 In-house cleanup: NO  
 Other Cleanup: NO

**32. Damages Was the total damage cost more than \$500? NO**

If yes, enter the following information: (If no, go to question 33.)

Material Loss: \$ 0  
 Carrier Damage: \$ 0  
 Property Damage: \$ 0  
 Response Cost: \$ 0  
 Remediation/Cleanup Cost: \$ 0  
*(See damage definitions in the instructions)*

**33a. Did the hazardous material cause or contribute to a human fatality? NO**

If yes, enter the number of fatalities resulting from the hazardous material:

Employees: 0  
 Responders: 0  
 General Public: 0

**33b. Were there human fatalities that did not result from the hazardous material? NO**

If yes, how many? 0

**34. Did the hazardous material cause or contribute to personal injury? NO**

If yes, enter the number of injuries resulting from the hazardous material:

**Hospitalized (Admitted Only):**

Employees: 0  
 Responders: 0  
 General Public: 0

**Non-Hospitalized:**

*(e.g.: On site first aid or Emergency Room observation and release)*

Employees: 0  
 Responders: 0  
 General Public: 0



NO

**35. Did the hazardous material cause or contribute to an evacuation?**

If yes, provide the following information:  
Total number of general public evacuated: 0  
Total number of employees evacuated: 0  
Total evacuated: 0

Duration of the evacuation: 0

**36. Was a major transportation artery or facility closed? NO**

If yes, how many? 0

**37. Was the material involved in a crash or derailment? NO**

If yes, provide the following information:

Estimated speed (mph): 0

Weather conditions:

Vehicle overturned? NO

Vehicle left roadway/track? NO

**PART V - AIR INCIDENT INFORMATION (please refer to S 175.31 to report a discrepancy for air shipments)**

**38. Was the shipment on a passenger aircraft?**

If yes, was it tendered as cargo, or as passenger baggage?

**39. Where did the incident occur (if unknown, check the appropriate box for the location where the incident was discovered)?**

**40. What phase(s) had the shipment already undergone prior to the incident? (Check all that apply)**

- Shipment had not been transported
- Transported by air (first flight)
- Transport by air (subsequent flights)
- Initial transport by highway to cargo facility
- Transfer at sort center/cargo facility

**PART VI - DESCRIPTION OF EVENTS & PACKAGE FAILURE**

- Describe the sequence of events that led to the incident and the actions taken at the time it was discovered. Describe the package failure, including the size and location of holes, cracks, etc. Photographs and diagrams should be submitted if needed for clarification. Estimate the duration of the release, if possible. Describe what was done to mitigate the effects of the release. Continue on additional sheets if necessary.

**Describe:**

While doing a routine inspection in the East Deerfield Yard, an FRA Inspector found that tank car (AMOX 033763) was leaking vapors from the vapor valve and notified Pan Am Railways. Pan Am Railways responded by cordoning off the tank car to prevent possible ignition, contacted the Deerfield Fire Department and a technician from AmeriGas. The fire department as well as the Ameri Gas technician responded to the incident. The technician was able to tighten the valve and stop the leak.

**PART VII - RECOMMENDATIONS/ACTIONS TAKEN TO PREVENT RECURRENCE**

- Where you are able to do so, suggest or describe changes (such as additional training, use of better packaging, or improved operating procedures) to help prevent recurrence. Provide recommendations for improvement to hazardous materials transportation beyond the control of your individual company. Continue on additional sheets if necessary.

**Describe:**

SHIPPER SHOULD PROVIDE PROPER TRAINING AND REVIEW PROCEDURES TO ENSURE THAT ALL VALVES AND PLUGS ARE PROPERLY TIGHTEN TO AVOID LEAKING DURING TRANSPORTATION.



# Hazardous Materials Incident Report

U.S. Department of Transportation  
Research and Special Programs  
Administration

Form Approval OMB No. 3137-0039

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 2137-0039. The filling out of this information is mandatory and will take 96 minutes to complete.

## INSTRUCTIONS

Submit this report to the Information Systems Manager, U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration, Office of Hazardous Materials Safety, DHM-63, Washington, D.C. 20590-0001. If space provided for any item is inadequate, use a separate sheet of paper, identifying the entry number being completed. Copies of this form and instructions can be obtained from the Office of Hazardous Materials Website at <http://hazmat.dot.gov>. If you have any questions, you can contact the Hazardous Materials Information Center at 1-800-HMR-4922 (1-800-467-4922) or online at <http://hazmat.dot.gov>.

## PART I - REPORT TYPE

- 1. Incident Id: I-2010120004
- 2. This is to report: Hazardous Material Incident

## PART II - GENERAL INCIDENT INFORMATION

- 3. Date of Incident: 10/19/2010
- 4. Time of Incident (use 24-hour time): 19:30
- 5. Enter National Response Center Report Number (if applicable): 957474
- 6. If you submitted a report to another Federal DOT agency, enter the agency and report number:
- 7. Location of Incident:
  - City: AUBURN
  - County: ANDROSCOGGIN
  - State: ME
  - Zip Code: (if known): 04210
 Street Address/Mile Marker/Yard Name/Airport/Body of Water/River Mile:  
DANVILLE YARD
- 8. Mode of Transportation: FRA-RAILWAY
- 9. Transportation Phase: IN TRANSIT
- 10. Carrier/Reporter:
  - Name: PAN AM RAILWAYS INC
  - Street: 1700 IRON HORSE PARK
  - City: NORTH BILLERICA
  - State: MA
  - Zip Code: 01862-1641
 Federal DOT Id Number: 347917      Hazmat Registration Number: 052510600008S
- 11. Shipper/Offeror:
  - Name: KINETIC RESOURCES LPG PROVIDENT ENERGY
  - Street: 250 2 STREET SOUTHWEST
  - City: CALGARY
  - State: AB
  - Zip Code: T2P 0C1
 Waybill/Shipping Paper: 722922      Hazmat Registration Number:
- 12. Origin (if different from shipper address)
  - City: SOUTH CALGARY
  - State: ZZ
  - Zip Code: T2P0C1
- 13. Destination:
  - City: ROCHESTER
  - State: NH
  - Zip Code: 03866

14. Proper Shipping Name of Hazardous Material: LIQUEFIED PETROLEUM GAS

15. Technical/Trade Name: HD 5 PROPANE

16. Hazardous Class/Division: 2.1 FLAMMABLE GAS

17. Identification Number: UN1075  
(E.g. UN2764, NA 2020)

18. Packing Group: (if applicable) N/A

19. Quantity Released: (Include Measurement Units) .000008 Liquid - Gallon

20. Was the material shipped as a hazardous waste? NO  
If yes, provide the EPA Manifest Number:

21. Is this a Toxic by Inhalation (TIH) material? NO  
If yes, provide the Hazard Zone:

22. Was the material shipped under an Exemption, Approval, or Competent Authority Certificate? NO  
If yes, provide the Exemption, Approval, or CA number:

23. Was this an undeclared hazardous materials shipment? NO

**PART III - PACKAGING INFORMATION**

24. Check Packaging Type (check only one - if more than one, list type of packaging, copy Part III, and complete for each type:

Tank Car

25. See instructions and enter the appropriate failure codes found at the end of the instructions. Be sure to enter the codes from the list that corresponds to the particular packaging type checked above. Enter the number of codes as appropriate to describe the incident.

Enter the most important failure point in line 1. If there are more than two failure points, provide in this format in part VI.

What Failed: 127 - Inlet (Loading) Valve  
How Failed: 308 - Leaked  
Causes of Failure: 515 - Human Error

26a. Provide the packaging identification markings, if available.

Identification Markings: DOT112J340W

(Examples: 1A1/Y1.4/150/92/USA/RB/93/RL, UN31H1/Y0493/USA/M9339/10800/1200, DOT - 105A - 100W (RAIL), DOT 406 (HIGHWAY), DOT 51, DOT 3-A)

26b. For Non-bulk, IBC, or non-specification packaging, if identification markings are incomplete or unavailable, see instructions and complete the following:

Single Package or Outer Packaging:	Single Package or Inner Packaging (if any):
Packaging Type: Material of Construction: Head Type (Drums only):	Packaging Type: Material of Construction:

27. Describe the package capacity and the quantity:

Single Package or Outer Packaging:	Single Package or Inner Packaging (if any):
Package Capacity: 0 Amount in Package: LGA 294582.09858 Number in Shipment: 1 Number Failed: 1	Package Capacity: Amount in Package: Number in Shipment: Number Failed:

28. Provide packaging construction and test information, as appropriate:

Manufacturer: KENITIC SARINA FRAC PLANT      Manufacture Date: 09/01/1979  
Serial Number: PROX 34357      Last Test Date: 07/05/2010  
Material of Construction: 12JAARTC128GRB (if Tank Car, CTMV, Portable Tank, or Cylinder)  
Design Pressure: 340 (if Tank Car, CTMV, Portable Tank)

Shell Thickness: .625 (if Tank Car, CTMV, Portable Tank)

Head Thickness: .625 (if Tank Car, CTMV)

Service Pressure: (if Cylinder)

If valve or device failed: NO

Type: ANGLE PLUG

Model: TA-7894-50

Manufacturer: REGO

**29. If the packaging is for Radioactive Materials, complete the following:**

Packaging Category:

Packaging Certification:

Certification Number:

Nuclide(s) Present:

Transport Index:

Activity:

Critical Safety Index:

## PART IV - CONSEQUENCES

**30. Result of Incident (check all that apply):**

- Spillage: NO
- Explosion: NO
- Vapor (Gas) Dispersion: YES
- No Release: NO
- Fire: NO
- Material Entered Waterway/Storm Sewer: NO
- Environmental Damage: NO

**31. Emergency Response: The following entities responded to the incident: (Check all that apply)**

Fire/EMS Report #: YES 10AUB-2414-IN

Police Report #: NO

In-house cleanup: NO

Other Cleanup: YES

**32. Damages Was the total damage cost more than \$500? NO**

If yes, enter the following information: (If no, go to question 33.)

Material Loss: \$ 0  
 Carrier Damage: \$ 0  
 Property Damage: \$ 0  
 Response Cost: \$ 0  
 Remediation/Cleanup Cost: \$ 0  
*(See damage definitions in the instructions)*

**33a. Did the hazardous material cause or contribute to a human fatality? NO**

If yes, enter the number of fatalities resulting from the hazardous material:

Employees: 0  
 Responders: 0  
 General Public: 0

**33b. Were there human fatalities that did not result from the hazardous material? NO**

If yes, how many? 0

**34. Did the hazardous material cause or contribute to personal injury? NO**

If yes, enter the number of injuries resulting from the hazardous material:

**Hospitalized (Admitted Only):**

Employees: 0  
 Responders: 0  
 General Public: 0

**Non-Hospitalized:**

(e.g.: On site first aid or Emergency Room observation and release)

Employees: 0  
 Responders: 0  
 General Public: 0

NO

**35. Did the hazardous material cause or contribute to an evacuation?**

If yes, provide the following information:  
 Total number of general public evacuated: 0  
 Total number of employees evacuated: 0  
 Total evacuated: 0

Duration of the evacuation: 0

**36. Was a major transportation artery or facility closed? NO**

If yes, how many? 0

**37. Was the material involved in a crash or derailment? NO**

If yes, provide the following information:

Estimated speed (mph): 0

Weather conditions:

Vehicle overturned? NO

Vehicle left roadway/track? NO

**PART V - AIR INCIDENT INFORMATION (please refer to S 175.31 to report a discrepancy for air shipments)**

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**PART VI - DESCRIPTION OF EVENTS & PACKAGE FAILURE**

- Describe the sequence of events that led to the incident and the actions taken at the time it was discovered. Describe the package failure, including the size and location of holes, cracks, etc. Photographs and diagrams should be submitted if needed for clarification. Estimate the duration of the release, if possible. Describe what was done to mitigate the effects of the release. Continue on additional sheets if necessary.

**Describe:**

In the process of walking and inspecting of the train the Conductor noticed a odor of gas and heard a hissing sound. The Conductor notified Pan Am Railways Operations and Local Emergency Responders were notified and arrived at the location. When the local hazmat team inspected the tank car they that a valve was not seated and were leaking vapor gas. The hazmat team tighten the valve and the leak was contained.

**PART VII - RECOMMENDATIONS/ACTIONS TAKEN TO PREVENT RECURRENCE**

- Where you are able to do so, suggest or describe changes (such as additional training, use of better packaging, or improved operating procedures) to help prevent recurrence. Provide recommendations for improvement to hazardous materials transportation beyond the control of your individual company. Continue on additional sheets if necessary.

**Describe:**

We contacted the shipper to report the findings. We suggested that a second employee check the valves for proper securing before shipping the tank car. Also to take a reading with a monitor for leaks. We also suggested that valves be tested periodically.

# Pan Am Railways Safety Department Out Reach Classes & Exercises from 2013 to August 2015

Pan Am Railways has offered Railroad Safety classes, Tank Car Classes & Exercises, Dispatcher Classes, Table Talk Exercises & Full Scale Railroad emergency Exercise throughout it's rail lines, partnering with the Federal Railroad Administration, Operation Life Saver, GATX, The Propane Institute, DuPont and many others to see that the communities we run through have a full understanding of how Pan Am Railways relies on safety and how important the relationships are with the communities we run through.

Since 2013 we have worked and trained with over 2000 emergency responders such as Fire Departments, Police Departments, Dispatchers, Town Hall Meetings, children of all ages, Federal Railroad Administration, Transportation Security Administration, Environmental Protection Agency and many others.

## 2013

03/2013- Westford, MA FD

05/2013- Belgrade ,ME FD

06/2013- Saco, Biddeford & Wells, ME FD

10/2013- CT Fire Academy

10/2013- NHDES, Dover NH, Rollinsford NH, Portsmouth NH, North Berwick ME FD.

## 2014

02/2014- Deerfield, South Deerfield, MA FD

03/2014- NH Homeland Security

03/2014- North Hampton, MA FD & Dispatchers



## Pan Am Railways Safety Department Out Reach Classes & Exercises from 2013 to August 2015

04/2014- Holyoke, MA FD

05/2014- Springfield, MA FD

05/2014- Lincoln ME, Mass Water Resources

06/2014- Greenfield MA FD

06/2014- Deerfield MA Town Meeting

06/2014- Manchester NH FD

06/2014- Carmel ME FD Controlled Burn

07/2014- Old Town ME FD

07/2014- Chicopee MA FD

07/2014- Turners Falls MA FD

07/2014- Tuners Falls MA, 3 bus companies were trained in Railroad Safety

07/2014- NMJ ME & surrounding towns FD

07/2014- Westford MA FD

07/2014- North Adams MA FD & surrounding towns

09/2014- Nashoba Valley MA Dispatcher Training

09/2014- East Hampton MA FD & Mass Conn. Supervisor Dispatcher Training

10/2014- Wells ME FD/PD & surrounding towns

# Pan Am Railways Safety Department Out Reach Classes & Exercises from 2013 to August 2015



12/2014- West Springfield MA FD

12/2014- Greenfield MA Dispatchers

## **2015**

01/2015- Greenfield MA FD

02/2015- NH Homeland Security

02/2015- Gill, Northfield, Shelburne, Bernardston MA FD

03/2015- New Gloucester ME FD

03/2015- Franklin County MA Dispatchers

03/2015- North Hampton MA FD/EMS

03/2015- ME, NH, MA, CT, VT, NY State Emergency Response Committees (SERC)

04/2015- Hadley, South Hadley, Whately MA FD/PD

04/2015- Plaistow, Newton, East Kingston, Exeter, Newfield's, Newmarket, Durham, Lee, UNH, Dover, Rollinsford, Portsmouth NH PD, North Berwick, Wells, Kennebunk ME PD

04/2015- Chicopee, Holyoke, Greenfield, North Hampton, Bernadston, Hatfield, Whately MA PD

04 & 05/2015- Mass Homeland Security Western Mass Anti-Terrorism Exercise

05/2015- Falmouth, South Portland ME PD, Cumberland County Sheriffs ME

05/2015- Maine EMG Training

## Pan Am Railways Safety Department Out Reach Classes & Exercises from 2013 to August 2015



Washington/Becket/Barnes FD, Watertown FD, Wayland FD, Webster FD, Wellfleet FD, Wendell FD, West Barstable FD, West Brookfield FD, West Haven, CT FD, West Springfield FD, West Stockbridge FD, Western Mass CISM Team, Westfield FD, Westfield PD, Westfield Public Safety, Westford FD, Westminster FD, Westminster PD, Weston FD, Westover AFB FD, Westwood FD, Westwood PD, Whately FD, Whately PD, Wilbraham FD, Williamsburg FD, Williamstown FD, Williamstown PD, Wilmington FD, Worcester County Reserve Deputy Sheriff, Worcester FD.

## Pan Am Railways Safety Department Out Reach Classes & Exercises from 2013 to August 2015



06/2015- Lincoln ME FD

07/2015- Old Town ME FD

07/2015- Portland ME FD

08/2015- GATX Tank Training, South Portland Maine & East Deerfield MA along with surrounding towns HAZMAT teams, DEP TSA, FRA, EPA

08/2015- Brunswick ME PD

### Over the past four years the following EMS Departments have also been trained:

104<sup>th</sup> Fighter Wing FD, Acton FD, Acton PD, Acton Public Safety, Acushnet FD & EMS, Adams FD, Agawam FD, Amherst FD, Amtrak PD, Andover FD, Andover PD, Army National Guard/179<sup>th</sup> FF DET, Ashburnham FD, Ayer FD, Barnes Air National Guard, Barnstable FD, Becket Ambulance Department, Becket FD, Becket PD, Bedford FD, Belchertown FD, Bellingham FD, Belmont FD, Bernardston FD, Billerica FD, Bolton PD, Bondsville FD, Bourne FD, Boxborough FD, Boxford FD, Braintree FD, Bristol County Tech Rescue, Brockton FD, Burlington FD, Byfield FD, Cambridge FD, Carver FD/Plymouth Cty CISM Team, Centerville-Osterville-Marstons Mills, Carlton FD, Chelmsford FD, Chicopee FD, Clinton FD, Concord FD, County Ambulance, Inc, Dalton FD, Deerfield FD, Deerfield PD, Dept. of Defense Fire and Emergency Services, DHS/TSA, Dracut FD, East Brookfield FD, Easthampton FD, Fitchburg FD, Framingham FD, Franklin FD, Gardner FD, Georgetown PD, Gill FD, Gill PD, Gloucester FD, Grafton FD, Great Barrington FD, Greenfield FD, Groton FD, Halifax FD, Harvard FD, Hatfield FD, Haverhill FD, Hinsdale FD, Holden FD, Holyoke FD, Huntington FD, Hyannis FD, Lancaster FD, Lanesborough FD, Lawrence FD, Lee Ambulance, Lenox FD, Leominster FD, Leominster PD, Leyden FD, Lincoln FD, Littleton FD, Longmeadow FD, Lunenburg FD, Manchester FD, Mashpee Fire & Rescue Dept, Mass. Dept. of Environmental Protection, Maynard FD, MBTA Transit PD, Medfield FD, Melrose FD, Middleboro FD, Middlefield FD, Monson FD, Montague FD, Montague PD, Nashoba Valley Regional Emergency Comm Ctr, Natick FD, Needham FD, New Bedford FD, New Salem FD, Newton FD, Northampton FD, Noble Hospital, North Andover FD, Northampton PD, Northfield FD, Northfield PD, Oakham FD, Onset FD, Orange FD, Oxford FD, Palmer FD, Pan Am Railways, Peabody FD, Peru FD, Pittsfield FD, Princeton FD, Princeton FD/NH Fire Academy, Reading FD, Rehoboth FD, Richmond FD, Rockport FD, Sandwich FD, Shelburne Control/MA State Police, Shirley FD, Shirley PD, Shutesbury FD, So. Grafton FD, Somers FD, Somerville FD, South Deerfield FD, South Hadley FD, South Hadley District 1, Southampton FD, Southborough FD, Southwick FD, Springfield FD, Sudbury FD, Sunderland FD, Sutton FD, Swansea FD, Templeton FD, Three Rivers FD, Town of Williamstown, Townsend FD & EMS, Trinity EMS, Turners Falls Fire Department, Tyngsboro FD, UMASS Amherst, United States Postal Service, Upton FD, Wales FD, Waltham FD, Wareham FD, Warren FD,



Mr. Sawyer has over 40 years of broad-based experience in the transportation field, including route location/planning studies, preparation of contract documents (PS&E), and on-site construction administration. He possesses creative management capabilities and is skilled at making persuasive public presentations that build consensus on difficult issues. He has led many large complex technical teams that have successfully left their mark on the northern New England landscape. Currently, projects include the replacement of the Sarah Mildred Long Bridge, between Kittery and Portsmouth, and the replacement of the I-91 bridges over the West River in Brattleboro, VT.

### Selected Project Experience - Transportation Engineering:

- **Replacement of Sarah Mildred Long Bridge** - Kittery, ME & Portsmouth, NH
- **Thornton Heights Complete Street** - South Portland, ME
- **William Clarke Drive Improvements** - Westbrook, ME
- **Maine Street Traffic Improvements** - Brunswick, ME
- **Main Street Multi-use Path** - South Portland, ME
- **Rochester Street Reconstruction** - Berwick, ME
- **I-91 Brattleboro Bridge Project** - Brattleboro, VT
- **Downtown Transportation Improvement Plan** - South Berwick, ME
- **City-Wide ATMS** - Dover, NH
- **Broadway Traffic Signal Upgrades** - South Portland, ME
- **Maine Mall Traffic Signal Operations** - South Portland, ME
- **Upper Route 1 Safety and Environmental Improvements** - Kittery, ME
- **Route 1 Traffic Signal Improvements** - Kennebunk, ME
- **Exit 3, I-295 Improvement Study and Design** - South Portland, ME
- **Portland Intermodal Transportation Center** - Portland, ME
- **Routes 1/3 Traffic Signal Operations** - Ellsworth, ME
- **Bicycle/Pedestrian Improvement Study** - Kittery, ME

## Education:

University of Maine, Orono, ME  
 Bachelor of Science,  
 Civil Engineering, 1973

Maine DOT Local Project Administration  
 Certification Course, 2010

NH DOT Local Project Agency (LPA)  
 Certification Course, 2012

## Registrations:

Professional Engineer:  
 Maine #3736  
 New Hampshire #05122  
 Vermont #4040

## Memberships:

American Society of Civil Engineers

Maine Institute of Transportation Engineers

Maine Better Transportation Association,  
 Board of Directors and Past President

## Training:

Traffic Signals Design and Operation  
 Workshop, Electric Light Company, 2010,  
 2011, 2012, 2013, 2014 and 2015  
 BlueTOAD and Dynaflo Workshop,  
 TrafficCast, 2010

Adaptive Traffic Signal Design Workshop,  
 Naztec, 2011

In 2008, Steve was instrumental in the development of a specific traffic signal systems operational practice within the firm which is quite unique to our industry. Current clients include South Portland, ME; Ellsworth, ME; Dover, NH; and Kennebunk, ME. As part of these assignments, Sebago engineers are providing daily monitoring and management of these systems via remote access to ensure their optimum efficiency.

Under Steve's leadership the firm has broadened its transportation geographic presence beyond Maine's borders. In 2014, NHDOT selected Sebago for a multi-year on call statewide contract for traffic engineering. In 2015 VTrans selected Sebago for a multi-year on call statewide roadway and traffic engineering contract.

Mr. Davids has 48 years of experience in the railroad industry. He joined Sebago Technics in 2011 as a track design advisor and inspector. Prior to joining Sebago, Mr. Davids had various short term projects for the Maine Department of Transportation (MaineDOT) including providing training for MaineDOT employees, contractors and railroad operators of MaineDOT owned lines. Also designed and installed a system of permanent monuments and measured offsets to curved track on a MaineDOT owned rail line with a problem of lateral track instability and recently installed continuous welded rail. He also worked with the MaineDOT as the railroad inspector for the rehabilitation of a major lift span railroad bridge over the Kennebec River and reconstruction of track approaches. During this same time period, he also worked with the Vermont Agency of Transportation preparing standards specifications for railroad track and bridge projects in Vermont.

### Education:

State University of New York, College at Delhi, Delhi, NY  
Associate Degree in Civil Technology, 1963

### Training:

Participant in Maine Operation Lifesaver (OL) since 1982. Certified as Presenter Trainer since 1995.

Courses at the Institute for Railway Engineering on Bridge Inspection

### Memberships:

American Railway Engineering and Maintenance-of-Way Association since 1972. Life member since 2002.

National Association of Railroad Safety Consultants and Investigators.

From July 1978 to June 2003, Mr. Davids was a Railroad Safety Inspector – Track for the U.S. Department of Transportation – Federal Railroad Administration-Office of Safety Region 1. His responsibilities included: obtaining railroad compliance with Federal Track Safety Standards, Bridge Safety Policy, and Railroad Worker Safety regulations in four New England states; investigated railroad accidents and complaints; participated in several railroad assessment projects from Alabama to West Virginia to Pennsylvania to Massachusetts (railroads involved included CSX, Conrail and Long Island Railroad); assigned as Assistant Manager of Safety Assurance and Compliance Program (SACP) on the Bangor and Aroostook System; and conducted intensive oversight of the track and bridge rehabilitation project prior to the start up of Amtrak service between Boston and Portland.

Mr. Davids worked for the Delaware and Hudson Railroad Engineering Department as a General Roadmaster during the period of October 1963 to July 1978. His positions included: Rodman, Instrumentman, Assistance Engineer, Assistant Track Supervisor, Track Supervisor, and Roadmaster. His responsibilities included: design, surveying drafting, construction inspection for a new line change, managing and supervising track maintenance and rehabilitation. He supervised up to 200 railroad maintenance employees, and the construction of 18 tracks in a new pulp and paper mill while supervising track maintenance of a subdivision. He also developed annual work plans and budgets for the Railroad.

Most recently Mr. Davids worked on the design and specification development of the Railroad portion of the new Sarah Mildred Long Bridge between Kittery and Portsmouth.

## Education:

Fisher College, Boston  
Community College of the Air Force, Gunter AFB,  
Alabama  
90 Semester Hours  
Major: Business

## Training:

Advanced Tank Car Technician Course - 2007  
Tank Car Technician Course - 2006  
Chicago Police Academy - Terrorism Awareness Course -  
2004  
New Hampshire Police Training Academy - 1975

## Affiliations:

Aircraft Owners and Pilot Association  
Private Pilot

## Awards:

Security clearance Top Secret (1983-2000)  
Awards received AF Meritorious Service Medal, AF  
Commendation Medal, AF Achievement Medal, ARF  
Meritorious Service Medal w/4D, National Defense  
Service Medal w/1D, Kuwait Liberation Medal,  
Southwest Asia Service Medal w/2D, Armed Forces  
Service Medal, Combat Readiness Medal w/5 D,  
AFGC Medal, Armed Forces Reserve Medal w/HG+M,  
Presidential Unit Citation, AF Outstanding Unit Award  
w/1D, AF Longevity Service Award w/3D, AF Small Arms  
Expert Ribbon, AF Training Ribbon.

- Federal Railroad Administration - Customer Service Award - 2002
- Federal Railroad Administration- Hazardous Materials Team Award - 2004
- Federal Railroad Administration - Hazardous Materials Award - 2006, 2009
- Federal Railroad Administration - Special Achievement Award - 2006, 2007, 2008, 2009
- Federal Railroad Administration - Special Pay Adjustment Award - 2009
- U.S. DOT Emergency Support Function 1 (ESF-1) - Team Award - 2010
- Federal Railroad Administration - Special Achievement Award - 2010
- Federal Railroad Administration - Special Pay Adjustment Award - 2011
- Federal Railroad Administration - Administrators Award - 2012
- U.S. Secretary of Transportation Award - 2012

**M**r. Fraini, Jr. joined Sebago Technics in 2015 as a Special Railroad Consultant. His previous work experience includes:

### **USDOT - Federal Railroad Administration (retired) Cambridge**

7/2003 - 4/2013  
Grade Level: GS-13  
Hours per week: 40

### **Supervisory Railroad Safety Specialist - HM, 2121**

- Supervises the hazardous materials inspectors assigned to the region. Conducts performance appraisals, approves leaves, schedules, and, conducts training.
- Responsible for the technical guidance of all hazardous material activities within the region. (MA/CT/ME/NH/VT/RI/NY/NJ)
- Assists the Regional Administrator in planning and managing programs.
- Advises the Regional Administrator on unique problem areas, operating practices, chemicals, research and development, and safety and health needs.
- Provides technical guidance on the hazardous material activities within the region.
- Evaluates the allocation of inspection resources within the region, commensurate with the risks of the materials transported and shipped.
- Evaluates and critiques the reports submitted by each hazardous materials inspector for legal sufficiency.
- Evaluates and critiques hazardous materials inspectors field reports concerning railroad accidents, incidents and derailments to determine if the causal factors are appropriately identified.
- Works with the hazardous materials inspector to provide technical guidance and uniform understanding of the laws, orders, rules, and regulations concerning the transportation of hazardous materials by railroad.
- Leads and coordinates special assessments, assignments, inspections and investigations.
- Provides technical knowledge of the various chemicals and their reactivity with other chemicals under various environmental conditions.
- Provides guidance to Federal agencies, State agencies, local governments, railroads, chemical and container manufacturers, labor organizations and employees of these entities.
- Conducts conferences and seminars for Federal agencies, State agencies, local governments, railroads, chemical and container manufacturers, labor organizations, and employees of these entities.
- When directed by the Regional Administrator, represents FRA in claims collection meetings and in court cases.

**USDOT - Federal Railroad Administration**

Cambridge

7/2001 - 7/2003

Grade Level: GS-12

Hours per week: 40

**Assistant Crossing & Trespasser Regional Manager, 2101**

· Assists in the promotion of all Department of Transportation (DOT) and FRA crossing and trespasser prevention programs with state, local, and rail law enforcement agencies.

· Assists in the development of new initiatives within the Region, testing and analyzing the program viability and worth.

· Assists in maintaining contact with DOT operating administrations, the National Transportation Safety Board and state and local officials.

· Represents the FRA and the Region while participating in initiatives, studies, and surveys regarding highway-rail crossing and trespasser programs with local communities, states and the railroad industry.

**Boston & Maine Railroad Police Department**

North Billerica

1/1991 - 7/2001

Hours per week: 60

**Captain of Police**

49 CFR 207 US DOT Railroad Police Officer

· Community Policing Unit Commander

· Aviation Unit Commander

· Special Investigations Unit Commander

· Wrote and secured \$225,000.00 US Department of Justice Community Policing Grant - 1st Rail Police agency in the nation to secure grant for trespass and grade crossing enforcement.

· Pan American Airlines Security Responsibilities

**United States Air Force Reserve Command**

Westover Air Reserve Base

1/1983 - 3/2000

Hours per week: 8

**439th Airlift Control Flight (ALCF) Superintendent (retired)**

Responsible to the commander for the direction and control of all airfield activities including flight following, mission monitoring, security, NBC response alerting/detection, aircraft load planning, hazardous materials shipments, airfield conditions & lighting, pilot services, weather, Notams, parking and services while deployed to forward operating bases with no USAF support.

**Boston & Maine Railroad Police Department**

North Billerica

1/1989 - 1/1991

Hours per week: 60

**Chief of Police**

Responsible to the Chairman of Board for the direction and control of a six state jurisdictional railroad police department consisting of 21 sworn police officers and an operating budget of \$1.02M. Credited with a 180-degree turnaround of department policies, direction and procedures. Resigned position because of military service activation and deployment to Saudi Arabia during the 1991 Persian Gulf War.

**Boston & Maine Railroad Police Department**

North Billerica

1/1987 - 1/1989

Hours per week: 60

**Captain of Police**

· Special Investigations Unit Commander

Responsible for major crime investigations, surveillance assignments and operations, which included air surveillance operations.

· Credited with the most effective railroad burglary task force felony arrest squad in the Boston area.

· Introduced air surveillance in the prevention, detection, and, apprehension of those engaged in criminal activity on the railroad which resulted in significant reductions in crime statistical reporting.

**Penn Central Railroad**

Boston

12/1975 - 1/1987

Hours per week: 40

**Patrolman**

1975 - 1987 Penn Central / Conrail / P&W / B&M - Performed duties including K-9 officer, sergeant, department liaison officer, and lieutenant at various rail system locations throughout New England and New York.

**Manchester Police Department**

Manchester

1/1975 - 11/1975

Hours per week: 40

**Patrolman**

Performed duties as a police patrolman which included arrests, investigations, report writing, patrol, court prosecution, traffic enforcement, and other duties as assigned.

**United States Air Force**

8/1969 - 9/1975

Hours per week: 60

**Security Police**

Active Military Police K-9 duties responsible for nuclear weapons system and base protection.