# BeRailSafe E-911 Training Handout



# Roger D. Smock

BeRailSafe:

• A NCDOT safety outreach program created to prevent rail-related deaths and injuries in North Carolina.

NC DOT Responsibilities:

• Authorize Amtrak to operate the *Piedmont* rail service between Raleigh and Charlotte.

## 1. Rail Pre-Planning

- Types of Rail Emergencies:
- Pre-planning: Do you have a plan?
  - Prepare for the worst case situation
  - Emergency response
    - Direction and control, Assignments and responsibility, Communication
  - Unified command
    - Fire, Police, EMS, Emergency Management, Red Cross, Public Works, Rail Carrier, NTSB, FRA
  - Further Considerations:
- Chain of Command:
  - Incident Commander:
  - Rail Company:
- GIS Capabilities:

### 2. Rail Nomenclature

- Key Terms People
  - Conductor-

# - Engineer-

- Train Operation Roles
  - The conductor is in charge of:
  - The engineer operates the train, but:
- Key Terms Tracks
  - Right-of-Way-
  - <u>Gauge</u>-
  - Fouling the Track/Fouling the Gauge/On the Foul-
- Key Terms Equipment
  - Grade Crossing-
  - (Crossing) Gate-
  - Emergency Notification Sign (ENS)-
  - Crossing ID (6 letters & 1 alpha)-
  - Signal Mast-
  - Crossbuck-

• Crossing Equipment Responsibility:

#### 3. Rail Incident Response

• Emergency Dispatcher Training Video:

#### 4. Crossing ID & Train Movement

- Emergency Notification System
  - Every grade crossing has a sign that displays the railroad telephone number, the location and mile post, and the U.S. DOT (crossing identification) number.
  - Notes:
- U.S. DOT (Crossing Identification) Number
  - 6 numbers followed by an alphabetic letter
    Example: 628815P

- Unique identifier, located at every crossing that doesn't exist anywhere else in the country
- Alternate names: DOT Number, Crossing Number, ID Number, Crossing ID Number, Number, #
- Notes:
- Mile Posts:
- Train Movement
  - Know which railroads control the tracks in your community and how to contact them in emergency situations.
  - Notes:
- Hazards on, along, and under the tracks:
- If Communication Fails:

### 5. Rail Mechanics

- Grade Crossing Equipment
  - How it works:
- Rail Signal Equipment
- Couplers:
- Drawbar (Coupler Shank):
- Starting & Stopping:

## 6. Train Physics

- Train Stopping Distance
  - Comparison:
  - From a speed of 55 miles per hour it takes a train one mile or more to stop.
    Equivalent to 18 football fields
- Train Weight
  - Average passenger train = 1,270,000 pounds or 635 tons
    Equivalent to 20 tractor trailers
  - Average freight car (100 cars of coal) = 22,000,000 pounds or 11,000 tons
    Equivalent to 275 tractor trailers
- Passenger Train vs. Freight Train:

#### **Additional Resources**

- National Emergency Number Association: Railroad & PSAP Interaction OID
  - http://www.nena.org/
- Emergency Contact Numbers
  - CSX 1-800-232-0144
  - Norfolk Southern 1-800-946-4744
  - NC Shortlines http://www.ncrailways.org/railroads
- Contact Information:
  - Roger Smock
    Rail Safety Consultant
    (336)215-6815
    rdsmock1@ncdot.gov
    BeRailSafe.org