



# U.S. DOT Federal Railroad Administration

U.S. Department of Energy  
Transportation External Coordination Working Group  
(TEC)

July 24-25, 2007

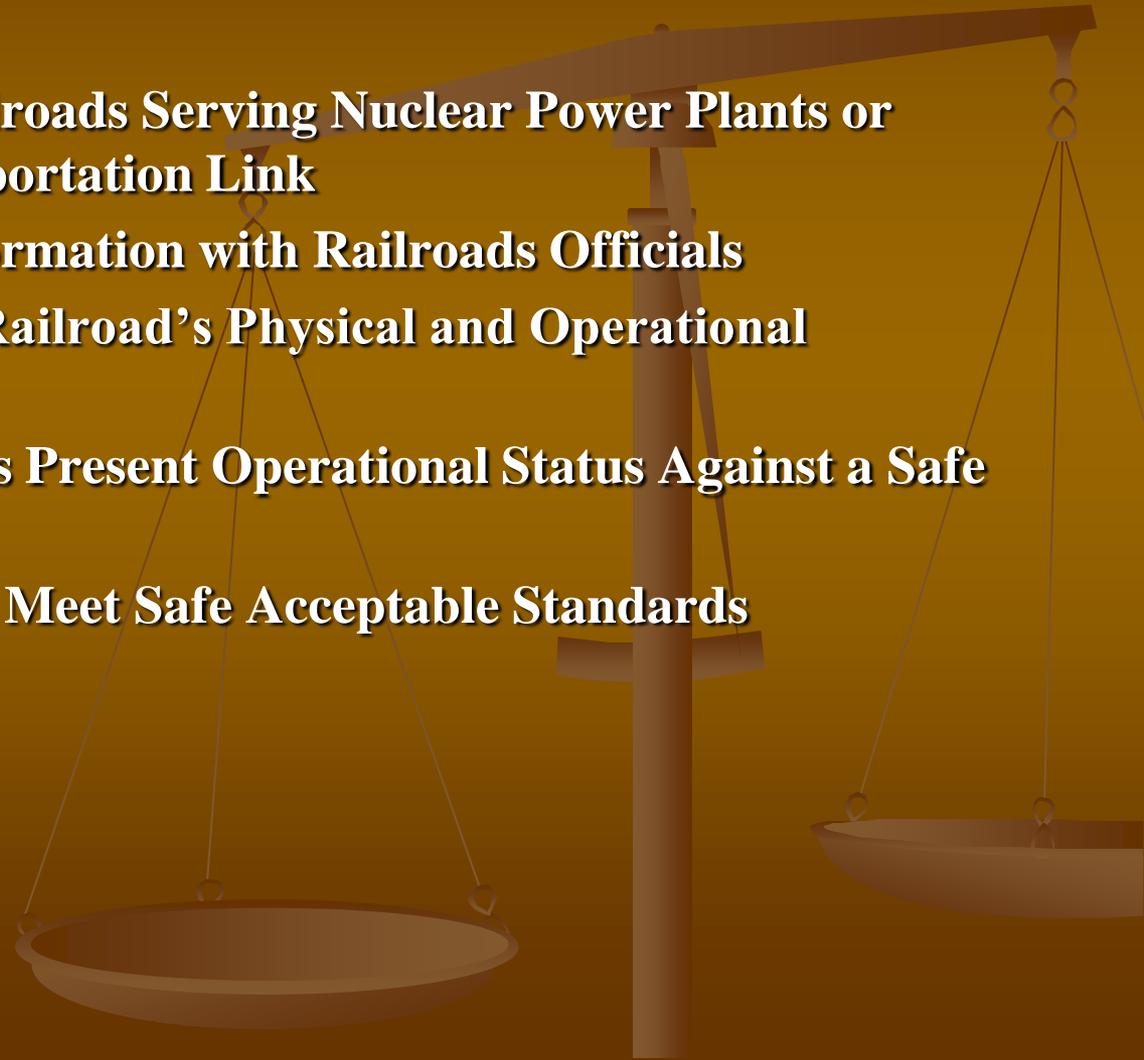
Kansas City, Missouri

Evaluation of Shortline Railroads  
Tasked for the Transportation of Spent Nuclear Fuel

# Evaluation of Shortline Railroads

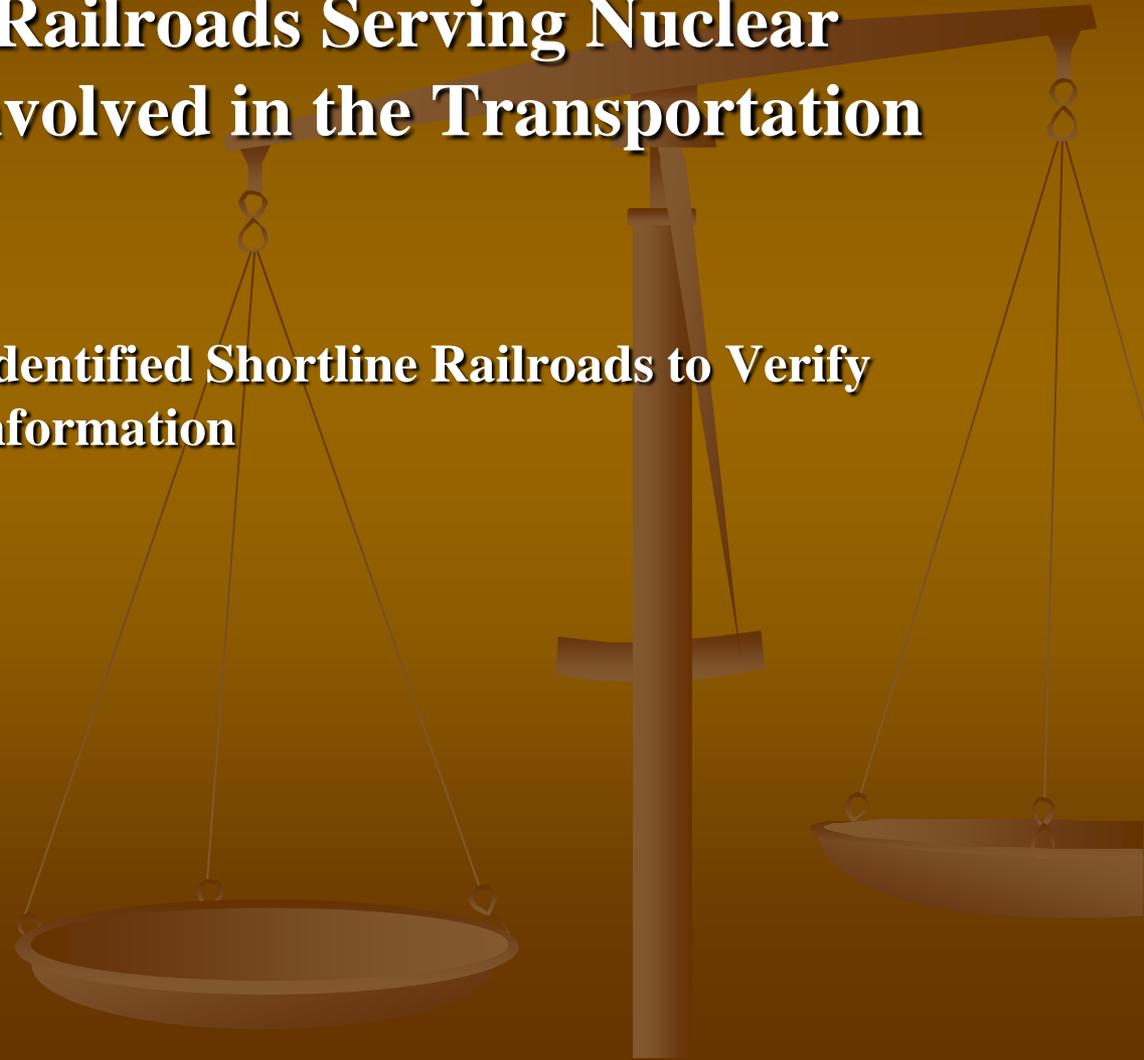
## ■ Task:

- Identify Shortline Railroads Serving Nuclear Power Plants or Involved in the Transportation Link
- Establish Contact Information with Railroads Officials
- Field Review of each Railroad's Physical and Operational Infrastructure
- Qualify each Railroads Present Operational Status Against a Safe Acceptable Standard
- Facilitate Upgrades to Meet Safe Acceptable Standards



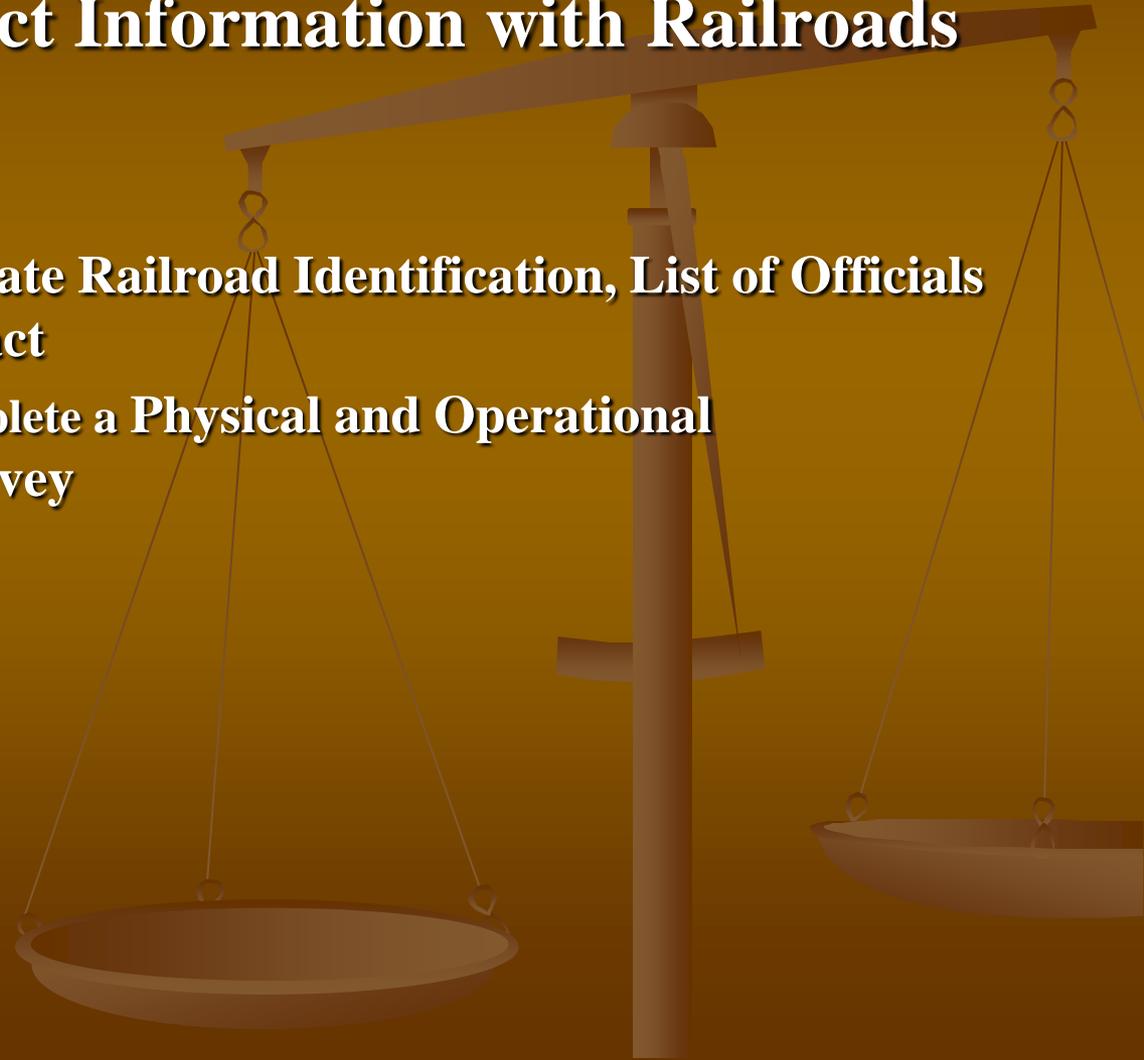
# Evaluation of Shortline Railroads

- **Identify Shortline Railroads Serving Nuclear Power Plants or Involved in the Transportation Link**
  - **Began Contacting 28 identified Shortline Railroads to Verify Validity of Existing Information**



# Evaluation of Shortline Railroads

- **Establish Contact Information with Railroad Officials**
  - **Creating an Accurate Railroad Identification, List of Officials and Point of Contact**
  - **Have Railroad Complete a Physical and Operational Infrastructure Survey**



# Evaluation of Shortline Railroads

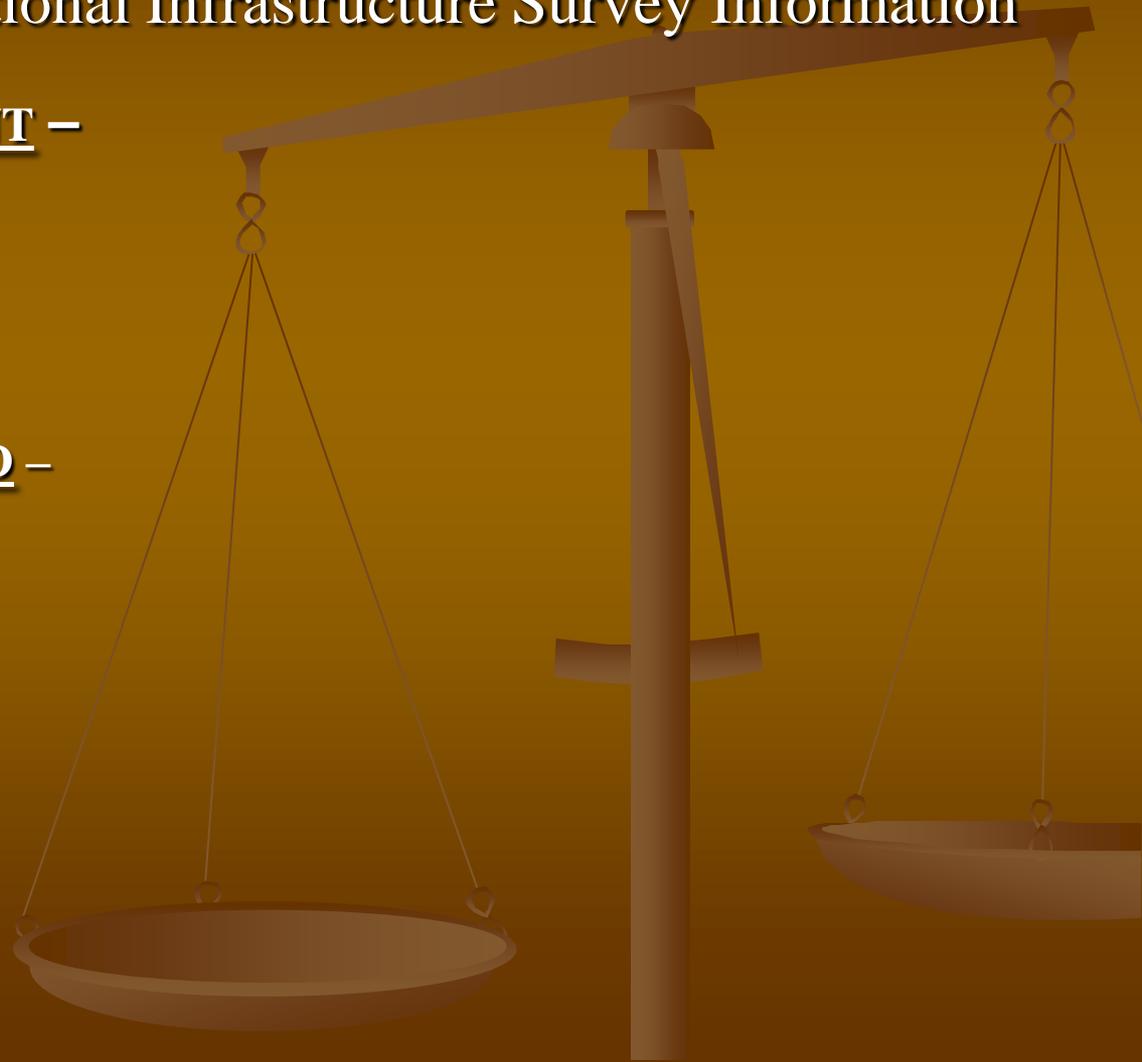
- Physical and Operational Infrastructure Survey Information

**DOE SHIPPING POINT** –

RAIL ACCESS -  
LOCATION –  
CONTACT –  
PHONE –

**SERVING RAILROAD** –

LOCATION –  
CONTACT –  
PHONE -  
E-MAIL -



# Evaluation of Shortline Railroads

- Physical and Operational Infrastructure Survey Information

## TRACK INFORMATION

CLASS ONE RAILROAD CONNECTION -

CLASS of TRACK -

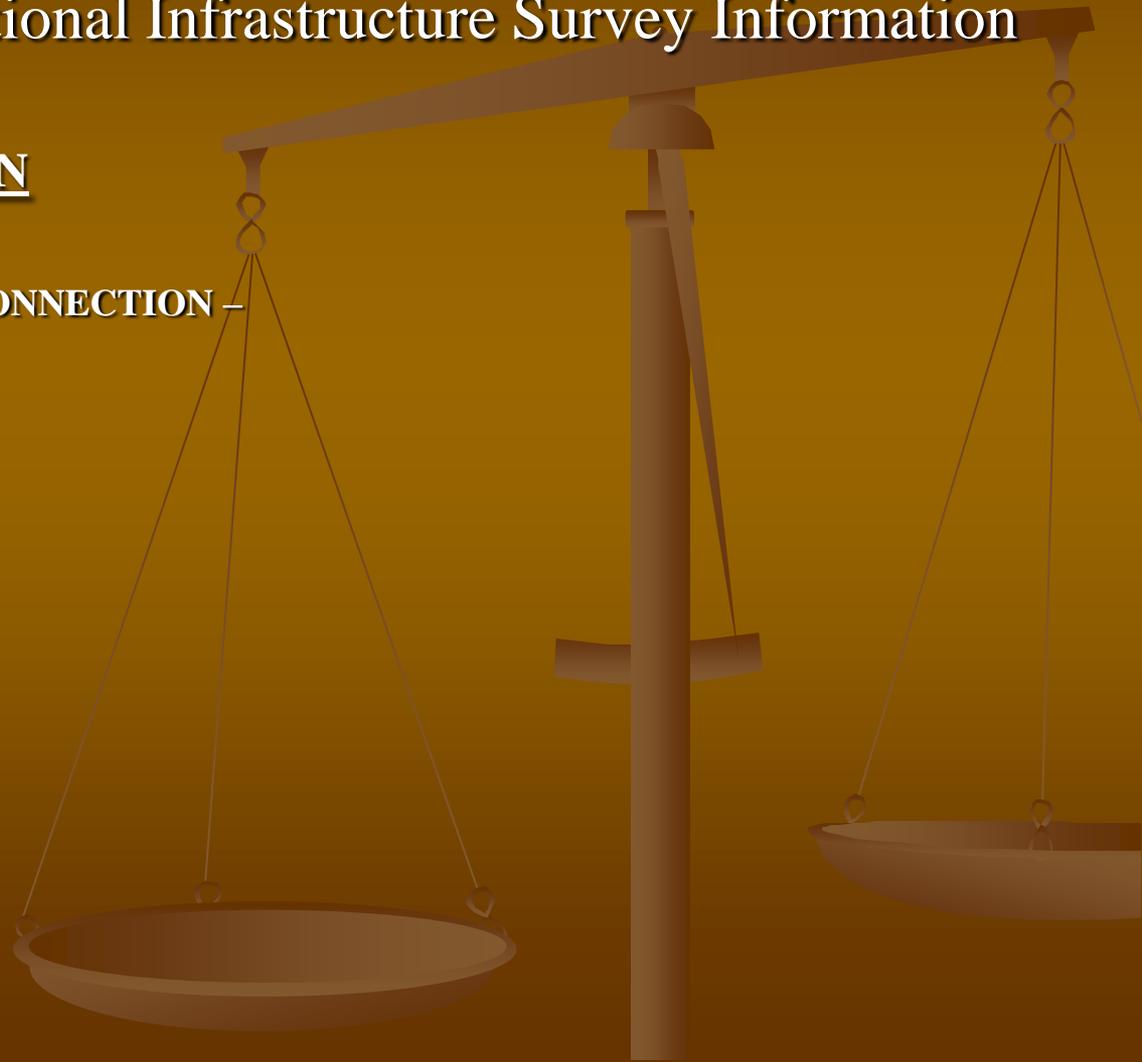
RAIL WEIGHT

≥100 LBS -

<100 LBS -

TRACK OWNERSHIP -

TRACK RESTRICTIONS -

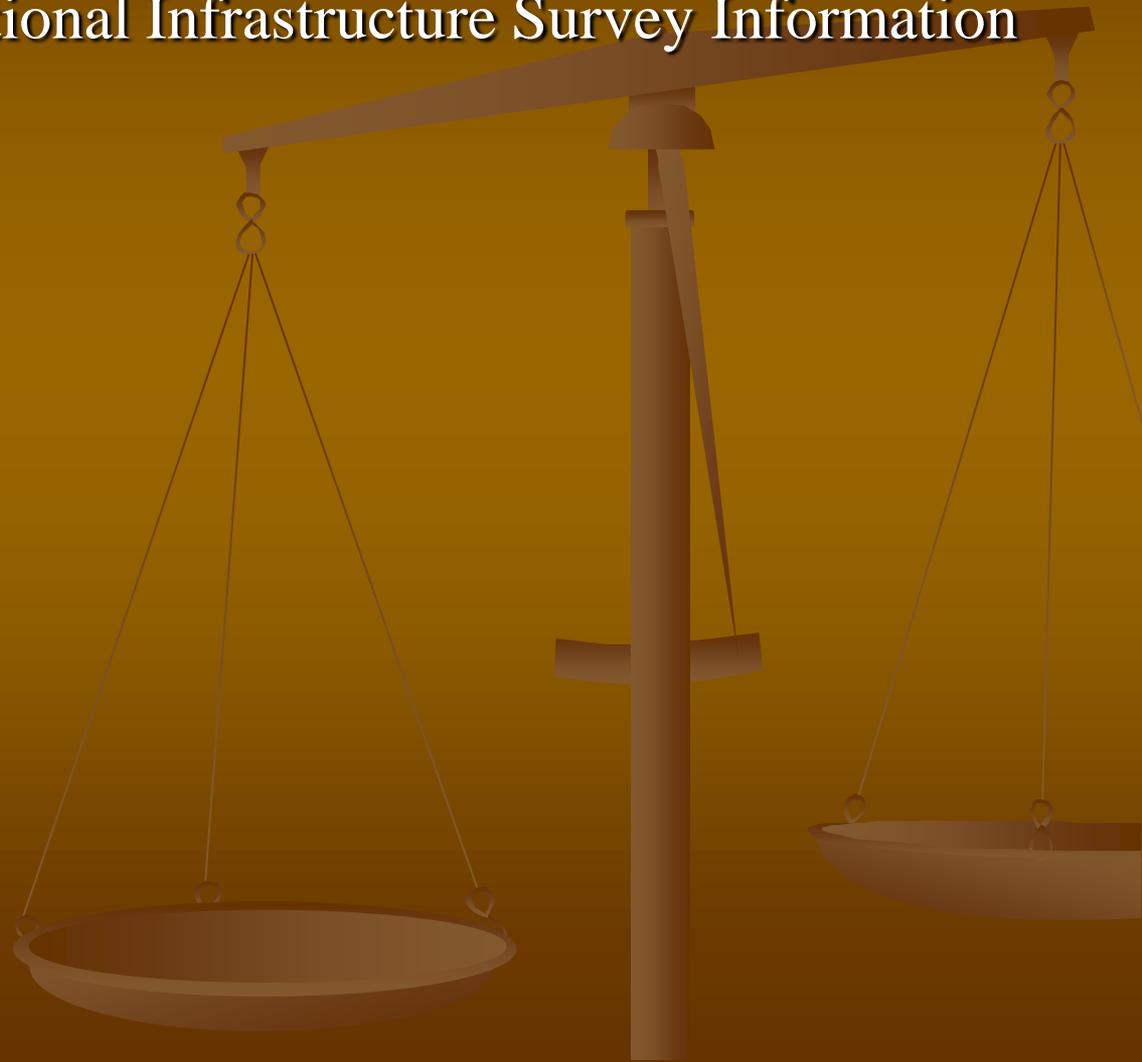


# Evaluation of Shortline Railroads

- Physical and Operational Infrastructure Survey Information

## O P INFORMATION

METHOD of OPERATION -

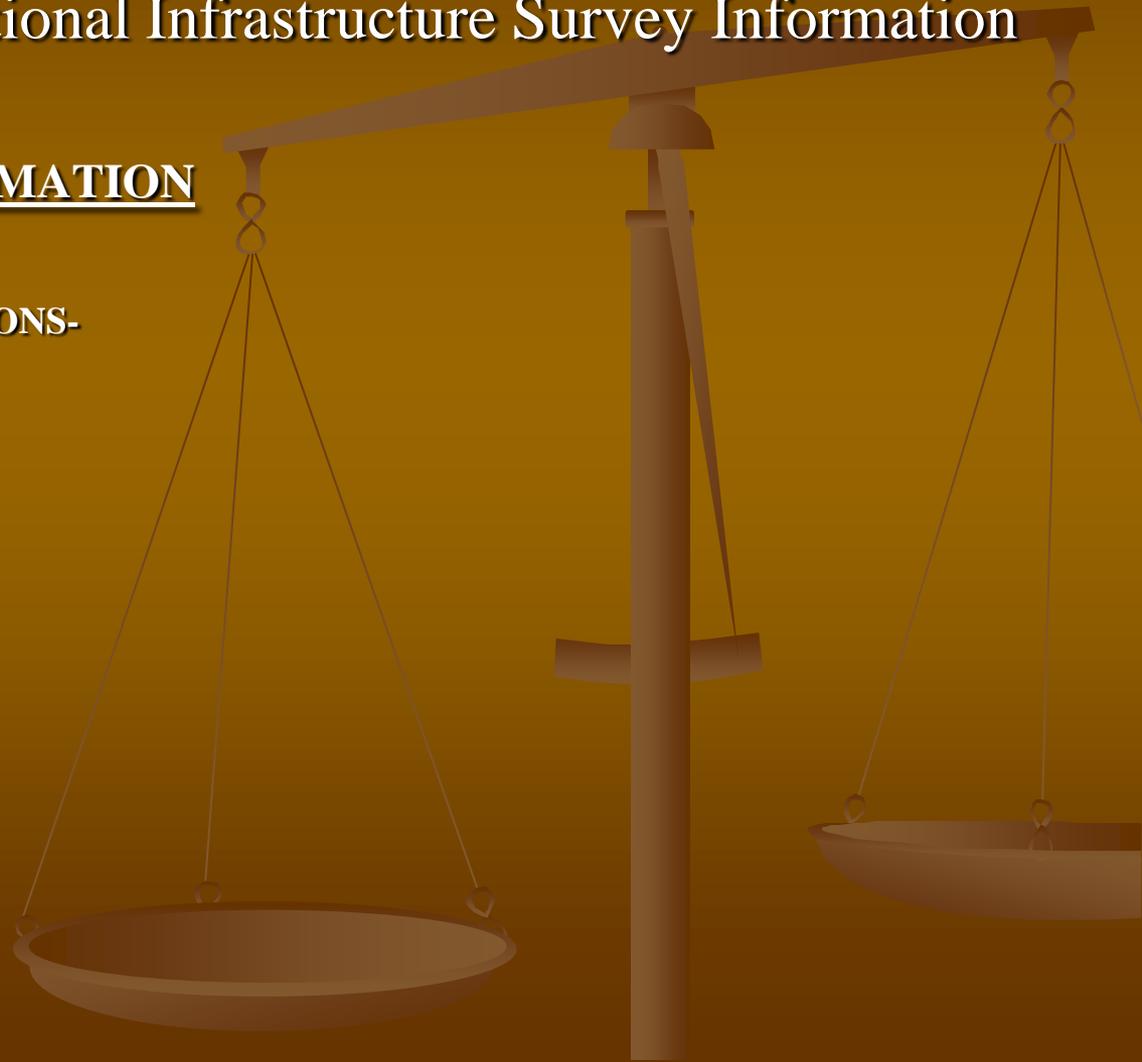


# Evaluation of Shortline Railroads

- Physical and Operational Infrastructure Survey Information

## MECHANICAL INFORMATION

EQUIPMENT RESTRICTIONS-

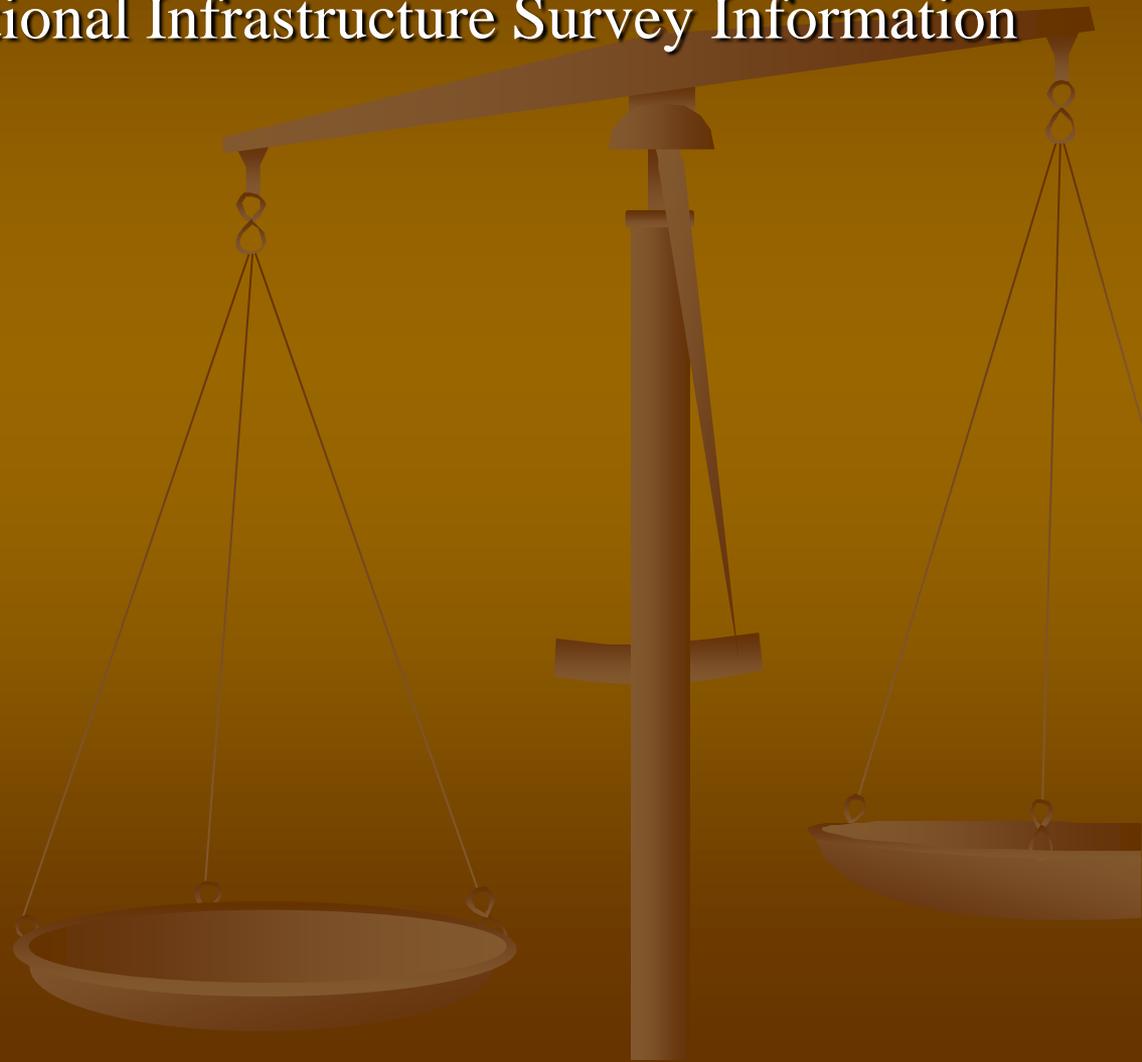


# Evaluation of Shortline Railroads

- Physical and Operational Infrastructure Survey Information

HM INFORMATION

HM REGISTERED -



# Evaluation of Shortline Railroads

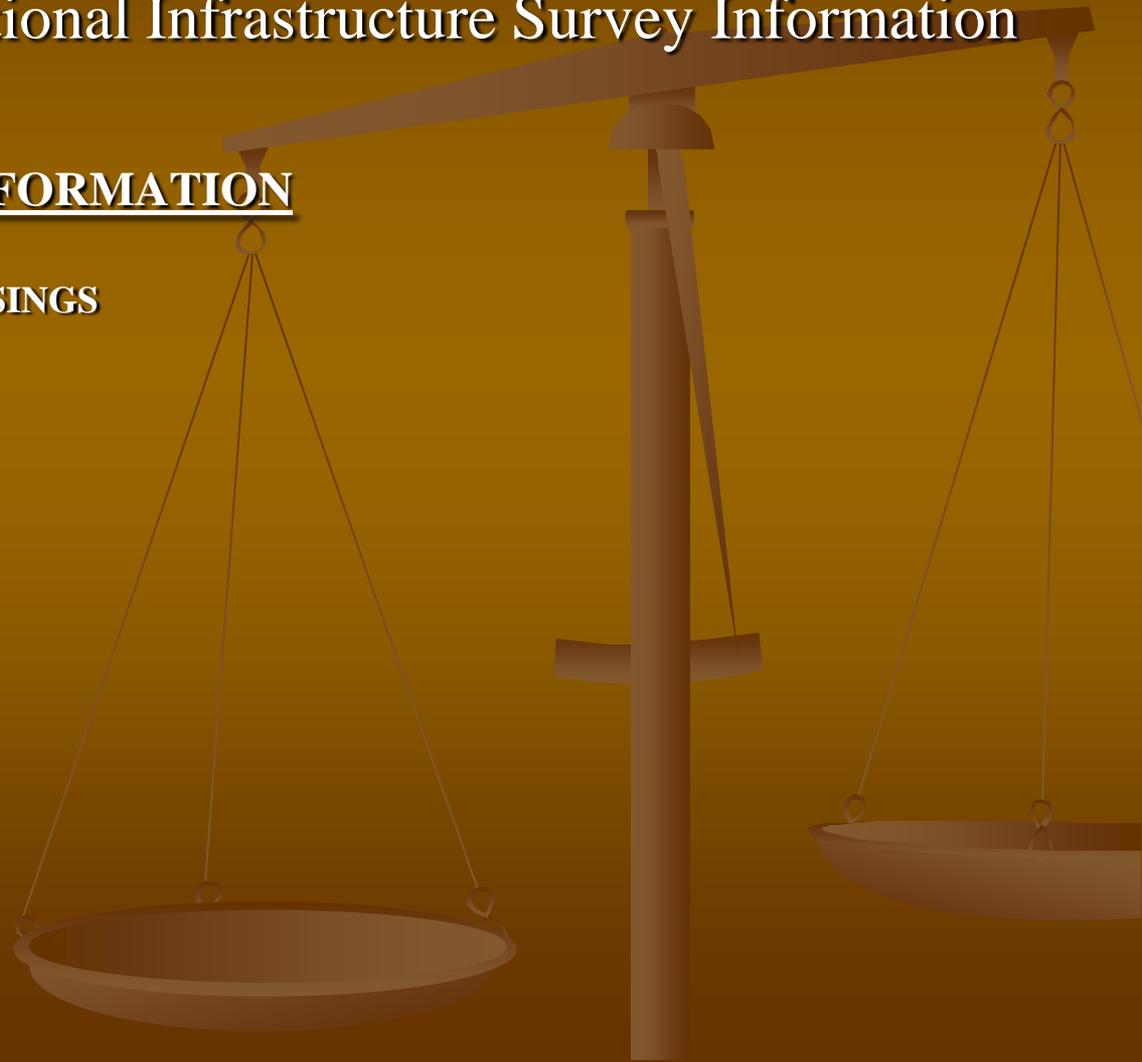
- Physical and Operational Infrastructure Survey Information

## GRADE CROSSING INFORMATION

NUMBER of GRADE CROSSINGS

ACTIVE -

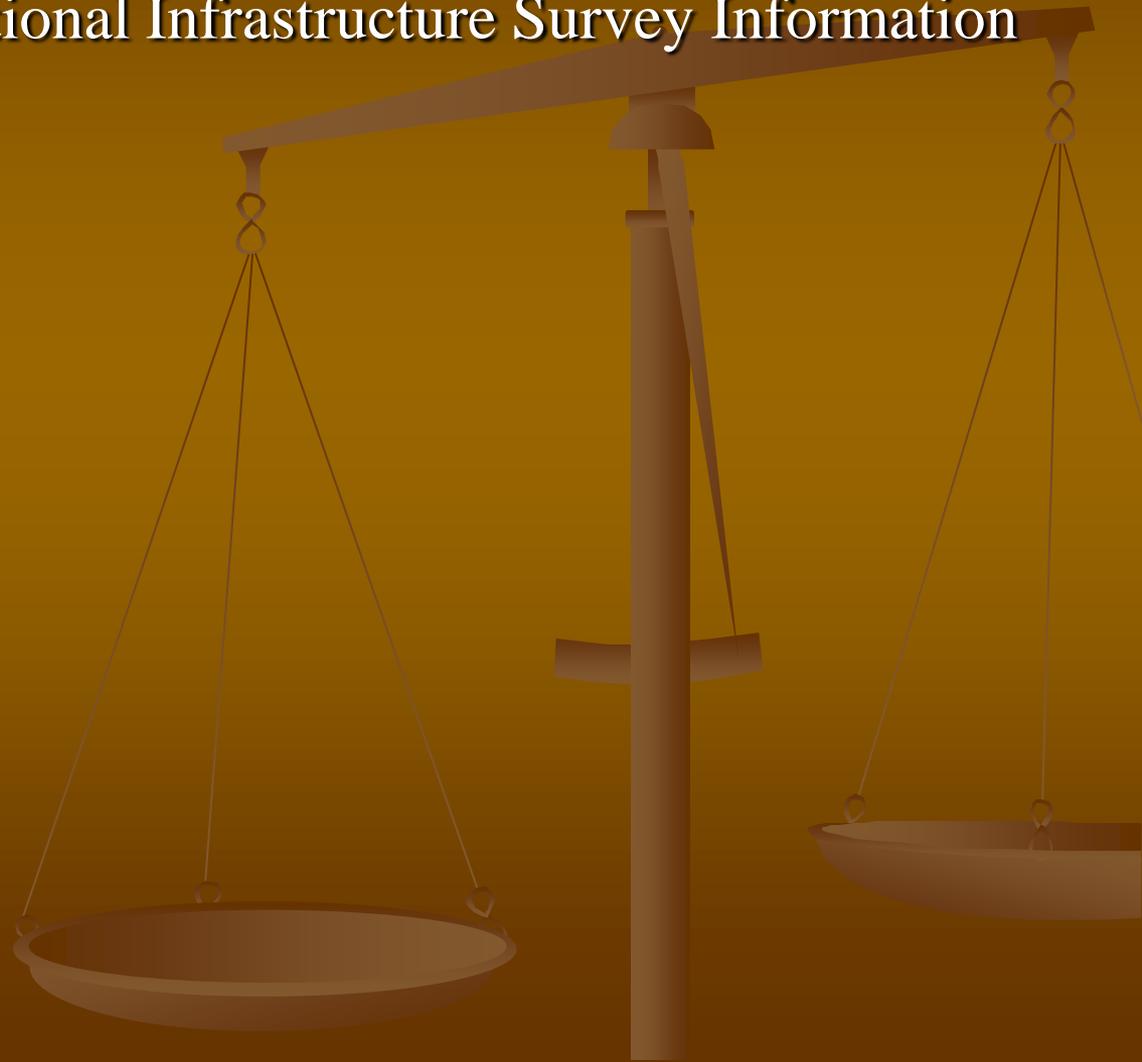
PASSIVE -



# Evaluation of Shortline Railroads

- Physical and Operational Infrastructure Survey Information

COMMENTS



# Evaluation of Shortline Railroads

- Physical and Operational Infrastructure Survey Information

## TRACK INFORMATION

CLASS ONE RAILROAD CONNECTION –

CLASS of TRACK –

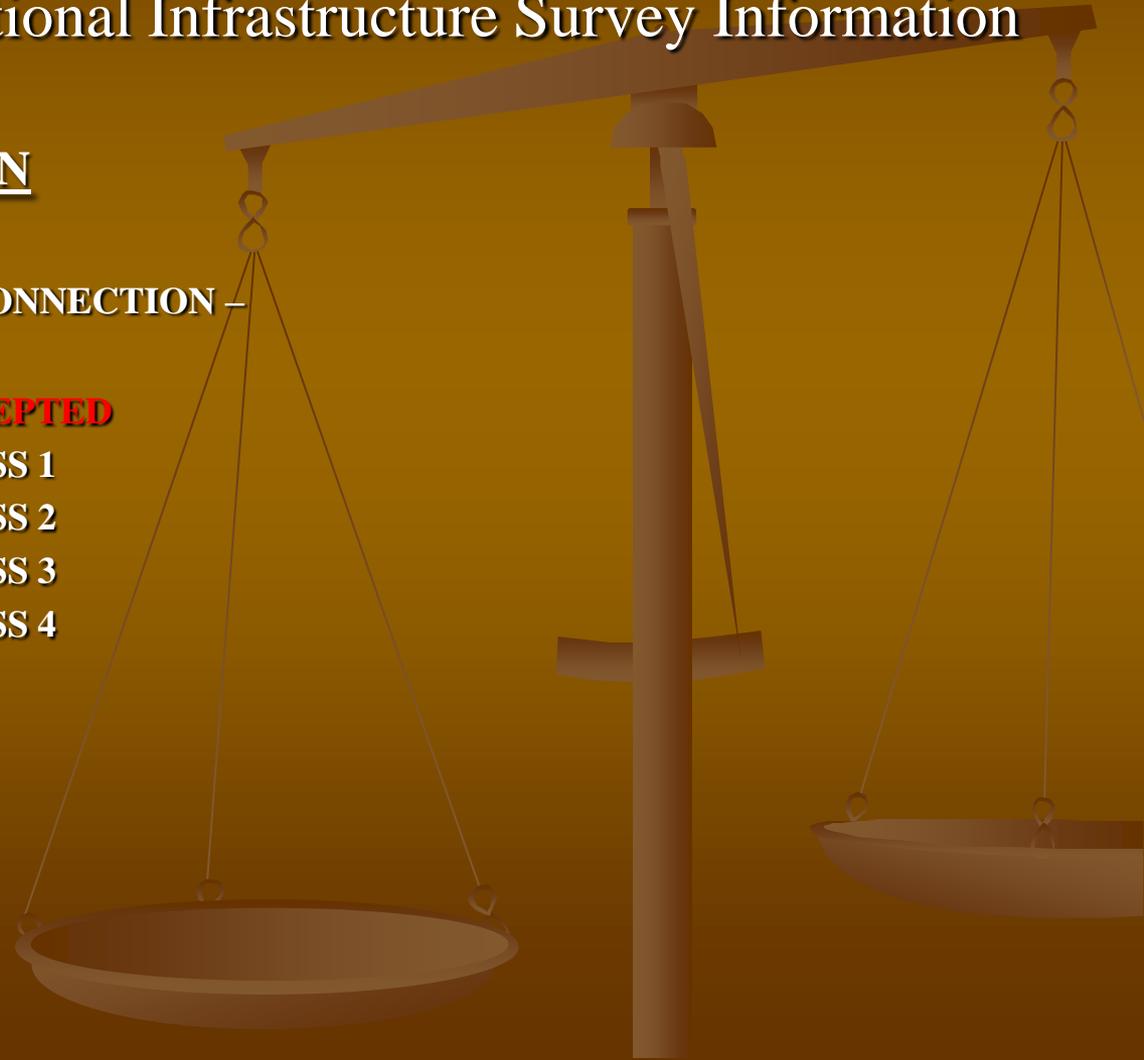
**EXCEPTED**

CLASS 1

CLASS 2

CLASS 3

CLASS 4



# Evaluation of Shortline Railroads

**EXCEPTED TRACK IN USE**



# Evaluation of Shortline Railroads

- Physical and Operational Infrastructure Survey Information

## TRACK INFORMATION

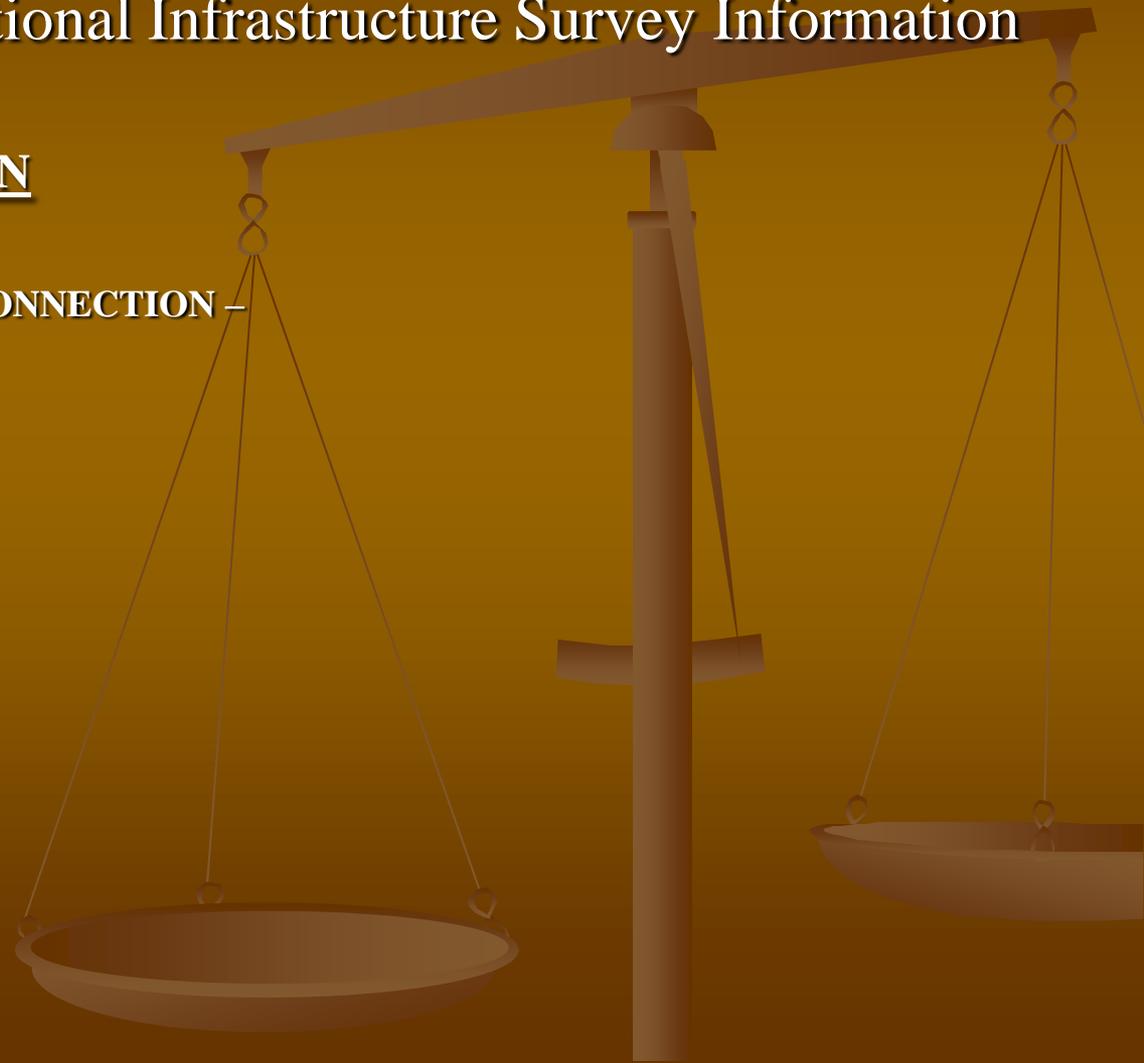
CLASS ONE RAILROAD CONNECTION –

CLASS of TRACK -

**RAIL WEIGHT**

**≥100 LBS -**

**<100 LBS -**



# Evaluation of Shortline Railroads

**RAIL WEIGHT**

**$\geq 100$  LBS -**

**<100 LBS -**



# Evaluation of Shortline Railroads

- Physical and Operational Infrastructure Survey Information

## TRACK INFORMATION

CLASS ONE RAILROAD CONNECTION -

CLASS of TRACK -

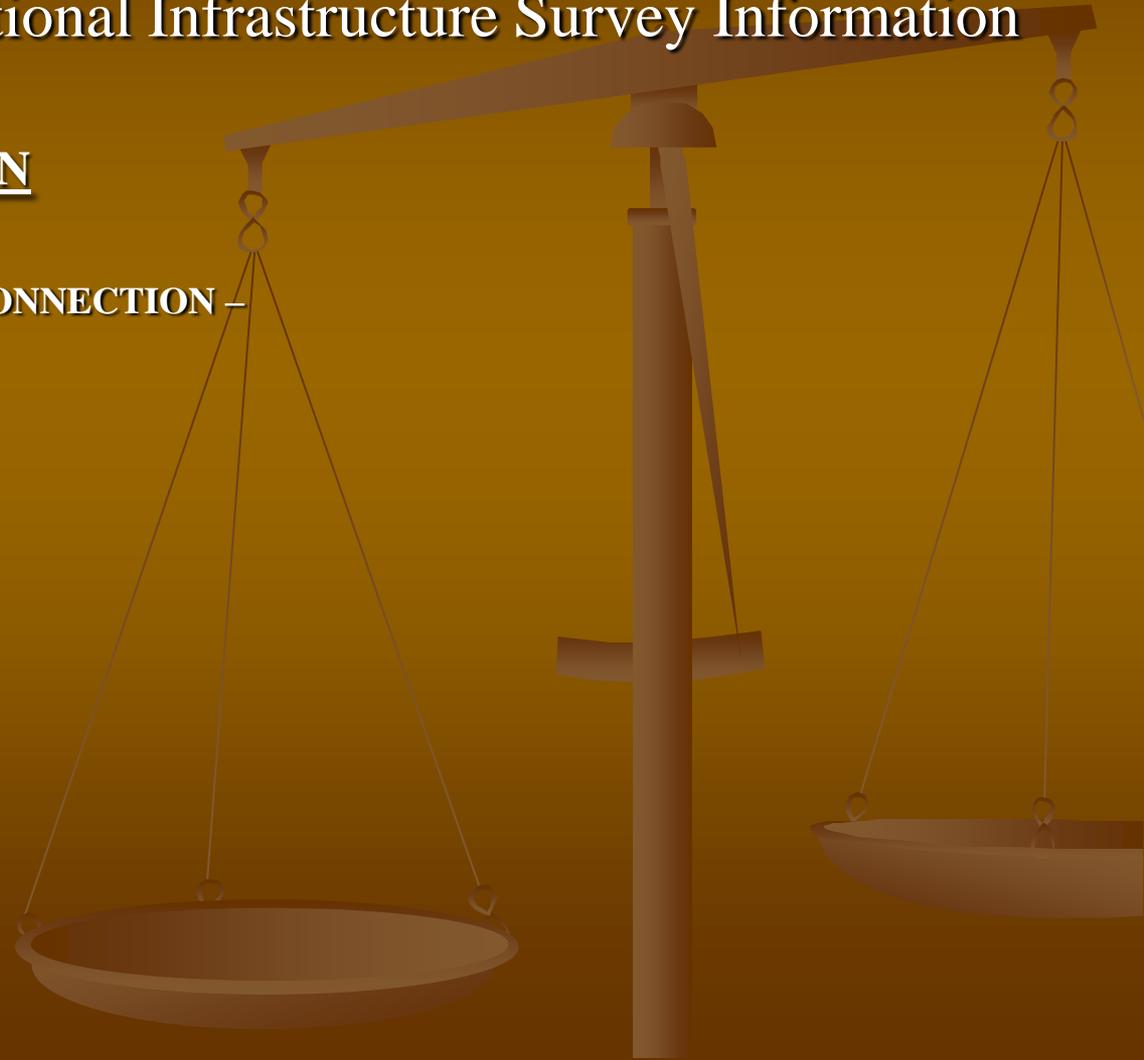
RAIL WEIGHT

≥100 LBS -

<100 LBS -

TRACK OWNERSHIP -

**TRACK RESTRICTIONS -**



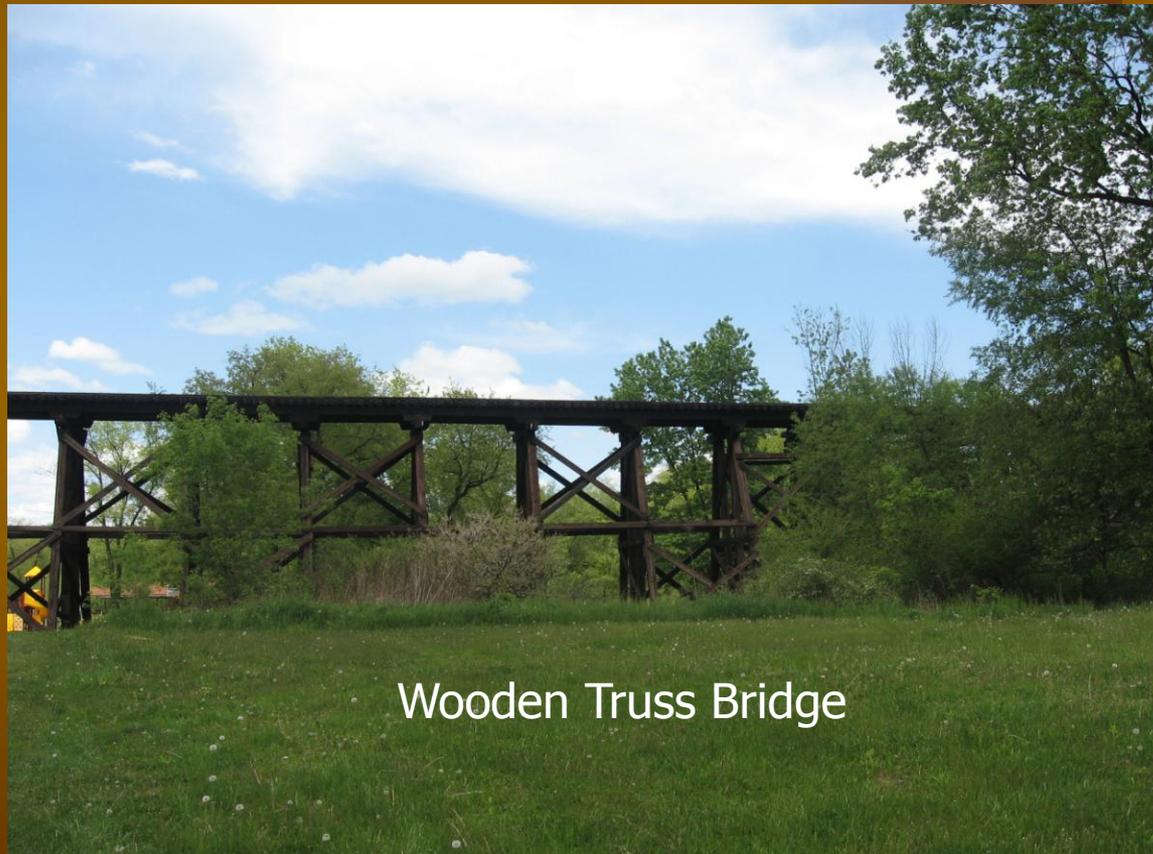
# Evaluation of Shortline Railroads

## TRACK RESTRICTIONS CLEARANCE



# Evaluation of Shortline Railroads

**TRACK RESTRICTIONS**  
**BRIDGE WEIGHTS**



Wooden Truss Bridge



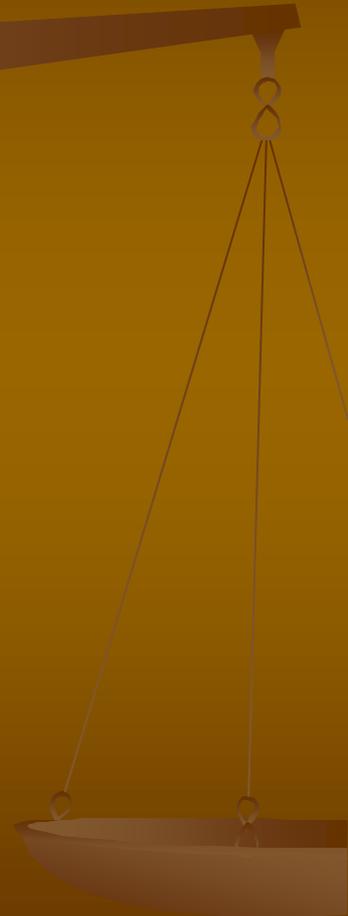
# Evaluation of Shortline Railroads

## TRACK RESTRICTIONS TUNNELS



# Evaluation of Shortline Railroads

**TRACK RESTRICTIONS**  
**TUNNEL CONDITION**



# Evaluation of Shortline Railroads

**TRACK RESTRICTIONS  
SHARP CURVES**



# Evaluation of Shortline Railroads

**TRACK RESTRICTIONS**  
**BRIDGE APPROACH CONDITION**



# Evaluation of Shortline Railroads

**FRA Track Classes are Based Upon Maximum Allowable Speeds:**

**TRACK CLASS SPEEDS RANGE FROM**

**CLASS 1 @ 10 MPH THROUGH CLASS 7 @ 100 PLUS MPH**

**TIGHTER TOLERANCES = HIGHER SPEEDS  
LESS RESTRICTIVE TOLERANCES = LOWER SPEEDS**

**EXCEPTED TRACK**

**10 MPH**

**GENERALLY ONLY REQUIRES AN INSPECTION ONCE EVERY 30 DAYS, AND ONLY REGULATORY AUTHORITY ARE THAT RAILROADS MUST COMPLY WITH MAXIMM GAUGE RESTRICTIONS.**

# Evaluation of Shortline Railroads

- **Objective:**

**Do these Railroad's meet the minimum safe expectable standard for,**

**Track Weights – determine minimum expectable for shipments**

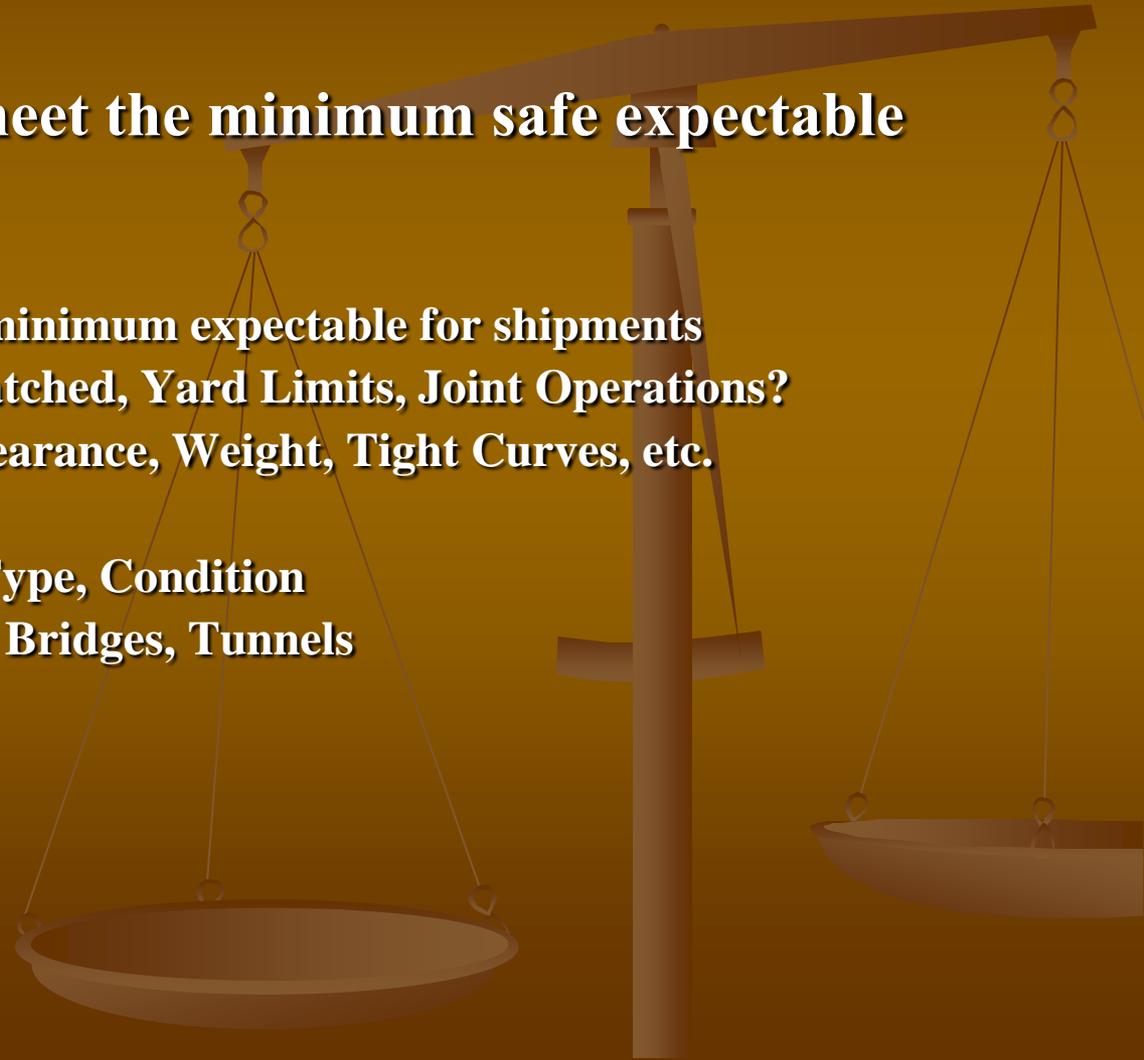
**Method of Operation – Dispatched, Yard Limits, Joint Operations?**

**Equipment Restrictions – Clearance, Weight, Tight Curves, etc.**

**HM – Registration, Training**

**Grade Crossing – Number, Type, Condition**

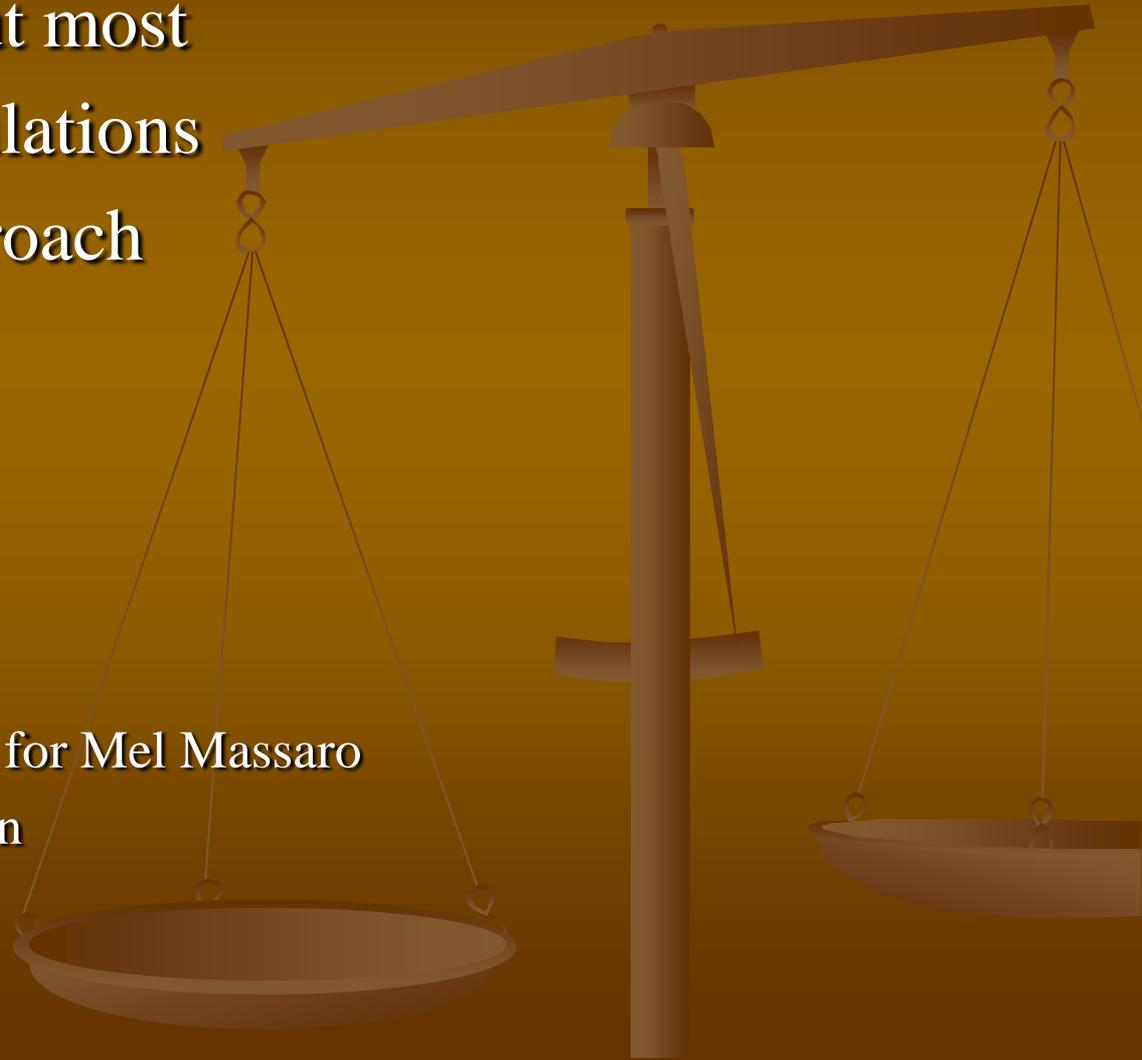
**Infrastructure Capabilities – Bridges, Tunnels**



# Evaluation of Shortline Railroads

As found throughout most of our Federal Regulations a give and take approach is the rule of LAW!

Presented by: Kevin Blackwell for Mel Massaro  
Federal Railroad Administration



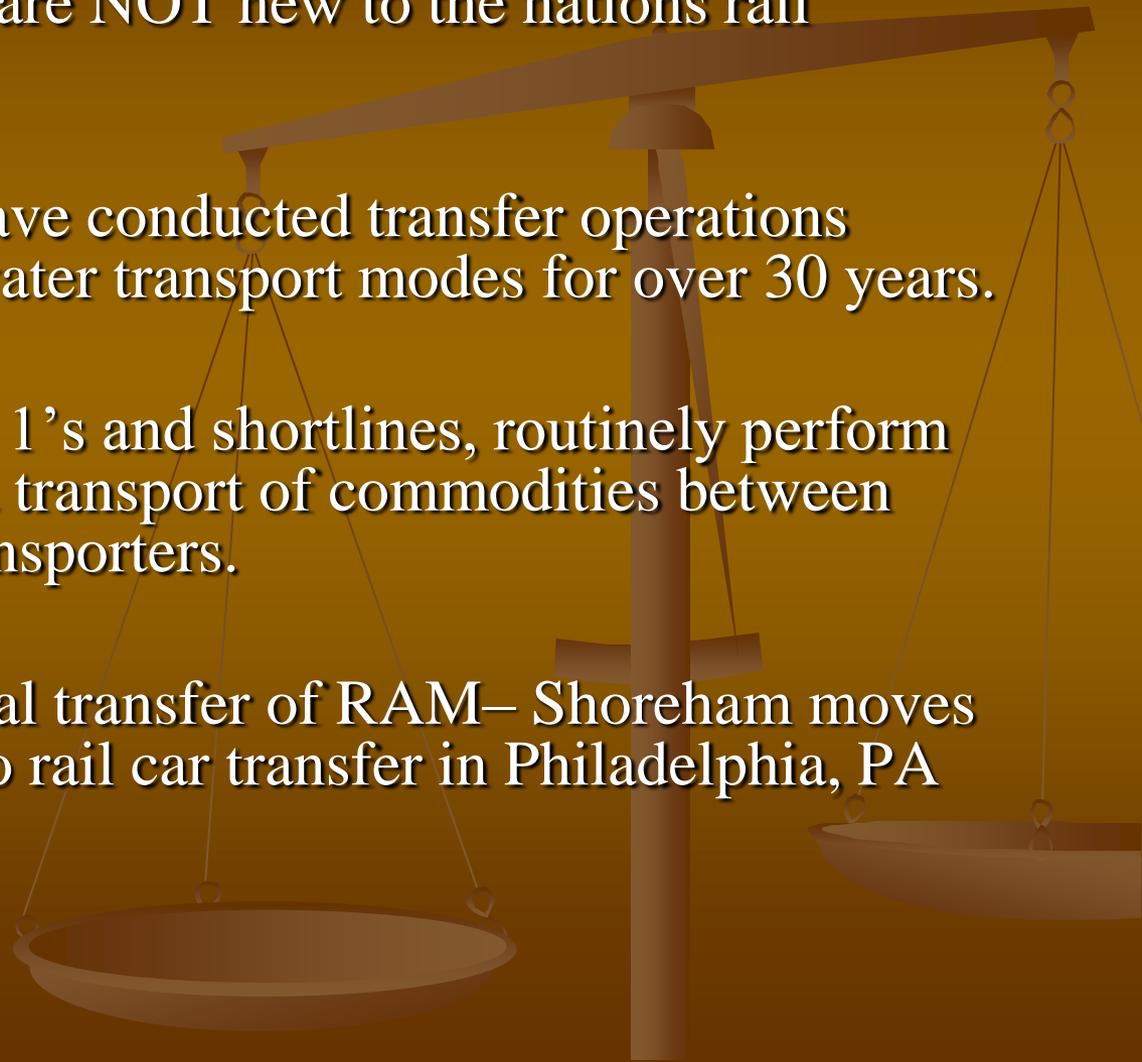
# RR Intermodal Operations

Intermodal Operations are NOT new to the nations rail carriers.

The nations railroads have conducted transfer operations to/from highway and water transport modes for over 30 years.

Many RR's, both Class 1's and shortlines, routinely perform intermodal transfer and transport of commodities between highway and vessel transporters.

This includes intermodal transfer of RAM– Shoreham moves in 1993/1994 – barge to rail car transfer in Philadelphia, PA area.



# Dairyland Power Reactor Vessel Movement



# Dairyland Power Reactor Vessel Movement



# Dairyland Power Reactor Vessel Movement

