



EMPLOYEE SAFETY

Who are the new Safety Resources within the INDOT organization?

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Central Office

Central Office Employee Safety and District Employee Safety Offices

INDOT's Safety offices are resources for all INDOT employees to create and maintain a safe work environment. Federal and State standards require INDOT to have "duty of care" to ensure every employees' health, safety and welfare while at work.

Most importantly, our offices are available to provide support to INDOT leaders so they may communicate, integrate and reinforce safety in all INDOT employees daily work activities.

INDOT Safety Related Manuals:

Safety Manual: <http://www.in.gov/indot/3244.htm>

Work Zone Safety Manual: <http://www.in.gov/indot/3244.htm>



Both Central Office Employee Safety and District Employees Safety Offices serve all INDOT employees.

Do you have the right equipment for the job?



Job Hazard Analysis/Assessment



Employers shall analyze and assess the workplace and conditions to determine what hazards are present or could potentially become present. Job hazard analyses/assessments is an effective method of preventing injuries.



Job Procedures: Workplace injuries often occur because employees are not trained in the proper job procedure. A hazard analysis/assessment allows the employer to analyze, develop and/or refine safer more efficient job procedures.



Personal Protection Equipment (PPE): The appropriate personal protective equipment (PPE) to be utilized when employees are working shall be determined and documented through hazard analyses/assessments.



For more information regarding job hazard analysis/assessments, review OSHA's Job Hazard Analysis guide at: <http://www.osha.gov/Publications/osh3071.pdf>



Maintain proper documentation of these analyses/assessments

WORKER VISIBILITY

Federal Register – 23 CFR Part 634 Worker Visibility of the Federal Register is now effective.



ANSI/ISEA Class II

Required



ANSI/ISEA Class III

Recommended

INDOT requires Class 3 vests for all INDOT employees by January, 2010 through a Quantity Purchase Agreement with the Indiana Association of Rehabilitation Facilities, Inc., (INARF). For information regarding INARF's safety products, please visit:

<http://www.inarf.org/default.asp>



WORKER VISIBILITY

Sources addressing worker visibility:

Federal Register – 23 CFR Part 634 Worker Visibility

Manual on Uniform Traffic Control Devices (MUTCD) 2003 Edition
with Revisions 1 and 2 incorporated

American National Standards Institute (ANSI)/International
Safety Equipment Association (ISEA) 107-2004

Federal Register – 23 CFR Part 634 Worker Visibility states:

- All workers within the right-of-way of a Federal-aid highway who are exposed either to traffic (vehicles using the highway for purposes of travel) or to construction equipment within the work area shall wear high-visibility* safety apparel. -§ 634.3
- States and other agencies shall comply with the provisions of this Part no later than November 24, 2008.

*High-visibility safety apparel means personal protective safety clothing that is intended to provide conspicuity during both daytime and nighttime usage, and that meets the Performance Class 2 or 3 requirements of ANSI/ISEA 107-2004 publication entitled "American National Standard for High-Visibility Safety apparel and Headwear."



Worker Visibility References

Federal Register – 23CFR Part 634 Worker Visibility:

<http://ops.fhwa.dot.gov/wz/resources/policy.htm>

Manual on Uniform Traffic Devices (MUTCD):

<http://www.in.gov/indot/3244.htm>

American National Standards Institute (ANSI) / International Safety Equipment Association (ISEA) 107-2004:

<http://www.safetyequipment.org/hivisstd.htm>

Indiana Occupational Safety and Health Administration's (IOSHA) letter of interpretation regarding Reflective Vests and Public Safety Personnel: <http://www.in.gov/dol/2365.htm>



Daily Safety Briefings

Plan, prepare and identify potential hazards

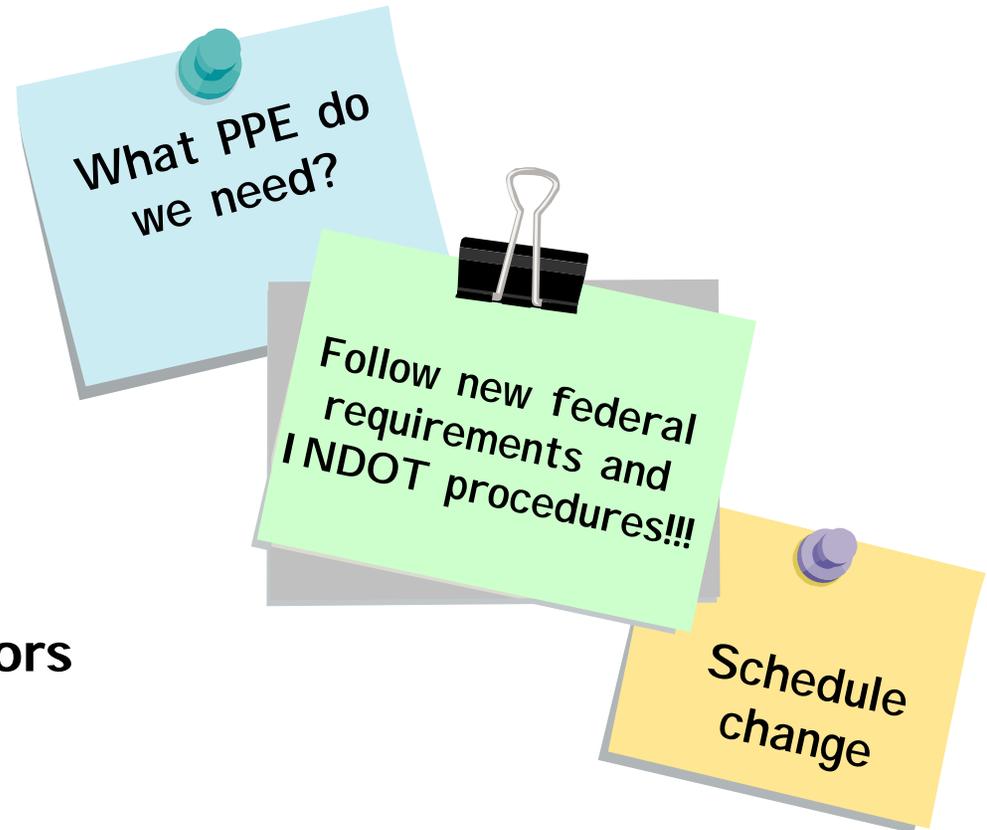


DAILY SAFETY BRIEFINGS...Why

The daily safety briefing is a pro-active communication application utilized in preventing injuries and accidents while performing daily work activities. Safety is a leadership responsibility. At INDOT, all levels of leadership are responsible for ensuring daily safety briefings are being performed prior to all INDOT field applications.

Daily safety briefings:

- Allows supervisors to communicate all possible safety hazards employees may be exposed to while performing daily work activities
- Allows the employees to communicate their safety concerns to their supervisors



Indiana Occupational Safety and Health Administration (IOSHA)

The Indiana Occupational Safety and Health Administration (IOSHA) is responsible for ensuring workplace safety and health in Indiana. IOSHA is composed of various divisions that enforce compliance with occupational safety and health regulations. Additionally, IOSHA's Whistleblower Protection Unit works to maintain the integrity of the [Indiana Occupational Safety and Health Act \(the Act\)](#) . IOSHA protects the right given to employees that file health and safety complaints with a government agency and the freedom to participate in an IOSHA inspection. Additionally, IOSHA's Whistleblower Protection Unit investigates all claims of retaliation against employees that may exercise their rights provided by the Indiana Occupational Safety and Health Act (the Act).

IOSHA information, Construction Safety, or Industrial Compliance: 317-232-2655

Fax: 317-233-3790

Email: jecarter@dol.in.gov



Employer Requirements

Employers must:

- Employers of eleven (11) or more employees must maintain records of occupational injuries and illnesses as they occur.

300 Log of work related injuries and illnesses

301 Injury and illness incident report

300A Summary of work related injuries and illnesses

The Summary page of the log must be posted at each establishment no later than February 1st and must remain in place until April 30th.



- Display the OSHA poster - The OSHA Job Safety and Health: It's the Law poster (OSHA 3165) is available for free from the OSHA Office of Publications. Please visit:

<http://www.osha.gov/Publications/poster.html>



- For on the job accidents that results in a fatality or hospitalization of three (3) or more employees, employers must contact IOSHA within eight (8) hours.



Inspection Prioritization

OSHA is authorized under the Act to conduct workplace inspections to enforce standards. Every establishment covered by the OSHA Act is subject to inspection by OSHA compliance safety and health officers (CSHO's). Inspections, with very few exceptions, are conducted without advance notice.

- **Imminent Danger** - Conditions that may require correction as soon as possible
- **Multiple hospitalizations** resulting in three (3) or more employees being hospitalized
- **Employee Complaints/Referrals**
- **Programmed High-Hazard Inspections**



Inspection Visit

During the inspector's visit:

- **Credentials - OSHA Compliance Officer shall provide credentials**
- **Opening Conference**
 - The compliance officer explains the purpose of the visit, the scope of inspection and the applicable standards
 - An employer representative will be asked to accompany the compliance officer
- **Inspection Tour**
 - Walk area and point out unsafe and unhealthful working conditions observed including possible corrective actions that may be taken by the employer
 - Consult with employees with minimal interruption
 - Inspect recordkeeping including OSHA workplace poster and the totals from the OSHA 300A have been posted
- **Closing Conference**
 - Discuss problems and needs to resolve issues, time for questions and answers
 - "Yes, we will fix it"



Project Office

A project office should have, at minimum:

- A competent person designated by the employer to inspect the job site, materials and equipment.
 - The competent person must have the ability to identify existing and potential hazards and have the knowledge of how to take corrective measures to alleviate hazards.
- OSHA's 300 (Log) and OSHA 300A (Summary)
 - 300 - Log of Work-Related Injuries and Illnesses
 - 300A - Summary of Work-Related Injuries and Illnesses
(Post the 300A Summary page from February 1 to April 30 of the year following the year covered by the form)
- OSHA Poster –
<http://www.osha.gov/pls/publications/publication.athruz?pType=Types&pID=5>
- Written Hazardous Communication Program, including:
 - Written program
 - Training
 - Labeling (ie. HMIS, NFPA, Manufacturer Standard labeling)
- Material Safety Data Sheet (MSDS)
 - Organized
 - Up-to-date
 - Availability



Project Office

(Continued)

- **Written Safety Policy**
- **First Aid kit**
- **Person trained in first aid and CPR**
- **Emergency telephone numbers should be posted at or near each telephone**
- **Fire Extinguisher**
 - **Portable fire extinguishers must be**
 - **Mounted**
 - **Identified**
 - **Readily accessible**



Project Office

(Continued)

A few potential hazards to watch for:

- Housekeeping
 - Keep walkways clear of debris
- Refrigerators – Is the refrigerator grounded?
- Electrical cords
 - Extension cords and flexible cords and/or cables may not be utilized as a substitute for fixed wiring
 - Electrical cords should be inspected for damage and if ground prong is missing
 - Unused openings in cabinets, boxes and fittings should be closed.
(Are “punchouts” missing)
- A competent person designated by the employer to inspect the job site, materials and equipment.
 - The competent person must have the ability to identify existing and potential hazards and have the knowledge of how to take corrective measures to alleviate hazards.
- Protection of open sided floors, platforms and runways



INSafe

Be proactive...

INSafe is a division of the Indiana Department of Labor. INSafe provides free consultation services to Indiana employers. No fines or penalties are given if safety or health hazards are identified during consultations and requests for consultation services do not initiate inspections.

Employers that seek INSafe's consultation services are required to immediately eliminate any imminent danger and correct any serious safety and health conditions within the required period of time as established by the INSafe consultant. OSHA enforcement will be contacted if the employer fails to immediately resolve danger hazards within the required period of time.



Visit INSafe at: <http://www.in.gov/dol/insafe.htm>





Work Zone Traffic Control

PE/PS Workshop 2009

Joe Novak

Traffic Control Plans

- Derived from transportation management plans
- Provided by designer
- Shall be followed unless revisions are approved



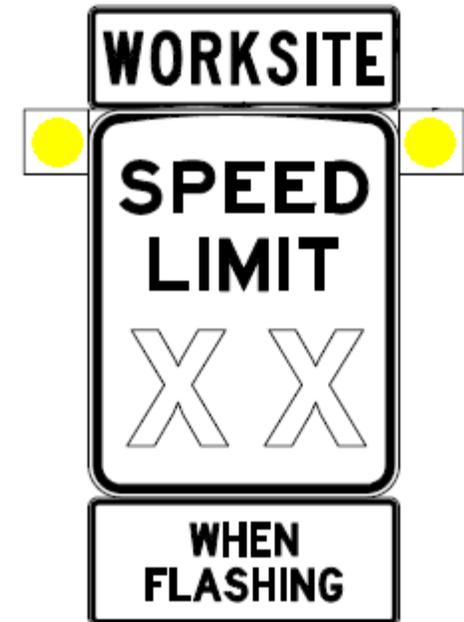
Speed Limits

- 2 types:
 - “Work zone” – entire project length
 - “Work site” – immediate vicinity of work
- Must be authorized during construction even if shown on the plans
- Reduction in speed limit for “work zone” must be authorized by DTE



Speed Limits (cont.)

- Use of TWSL sign assemblies for temporary reduction of speed limit for “work site” must be authorized by DCE or DTE
 - Memo 06-22
- Need to determine local authority for LPA projects



Certified Worksite Traffic Supervisor

- Role [does not include design of traffic control plan but does include evaluation]
- Training and experience
 - Certification or Re-certification
- ATSSA approved equals posted on INDOT website
 - <http://www.in.gov/indot/files/ATSSAApprovedEqualList.pdf>



NCHRP Report 350

- **National Cooperative Highway Research Program (NCHRP) Report 350**, "Recommended Procedures for the Safety Performance Evaluation of Highway Features"
- Purpose
- Certification of devices per category – I, II, III
- Test levels – TL2, TL3
- Future changes - *MESPHF 2007* will replace NCHRP Report 350 as of Jan 1, 2010?? *MASH 2009?*



NCHRP Report 350 Device Categories

- TL-3** ■ I – Channelizing (cones, drums, tubular markers)
- TL-3** ■ II – barricades, portable sign standards
- TL-2 or 3** ■ III – temp barriers, impact attenuators, fixed sign supports
- IV – Trailer mounted (arrow boards, CMS, portable lighting, portable signals)
 - Evaluation Pending



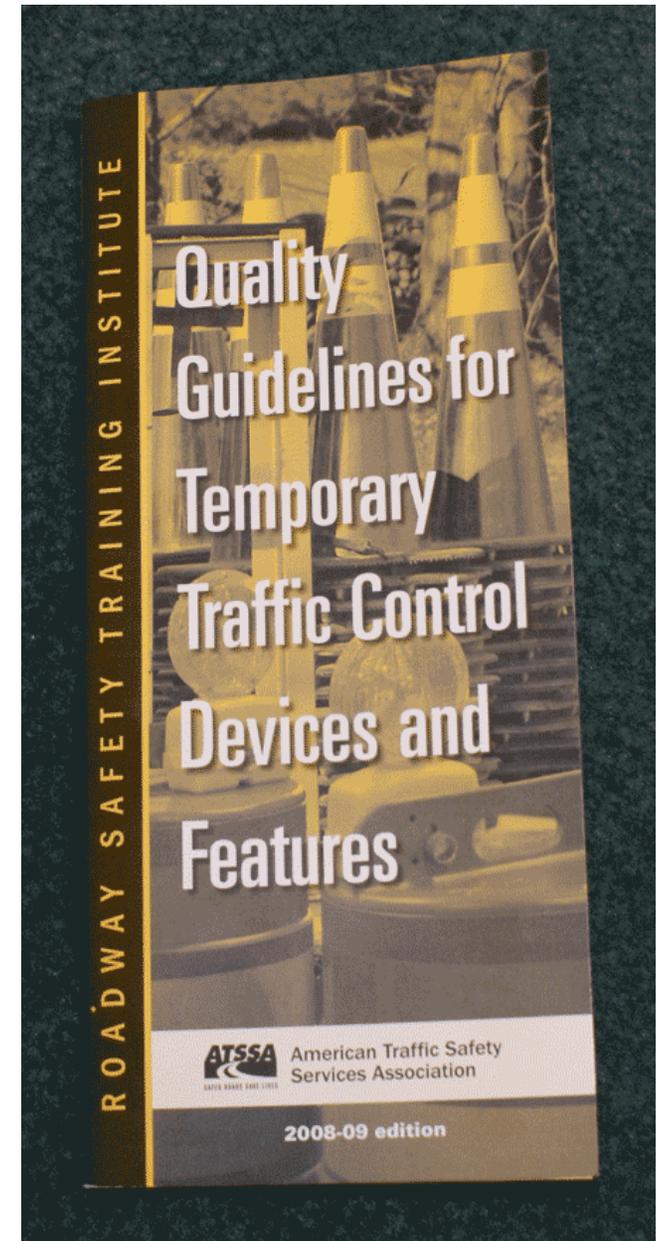
NCHRP Report 350 Test Levels

- $0 < \text{TL } 1 \leq 30$ mph (INDOT does not recognize this lower level)
- $30 < \text{TL } 2 \leq 45$ mph
- $45 < \text{TL } 3 \leq 62$ mph (INDOT does not require anything higher than this)
- TL 4, 5, & 6 for larger vehicles (trucks)



Reports

- Weekly device report:
Recurring plan detail
 - QA adjustments
 - No notice
- TWSLA reporting if applicable
 - <http://www.in.gov/indot/files/TWSLAWeeklyReport.pdf>
- Queue reporting if applicable
(interstate only) Memo 07-25



Temporary Traffic Barrier

- When is TTB specified?
- Types and limitations
 - Taper, anchorage, deflection, rotation
- Storage on R/W



TTB Type 2 Option: Water filled



TTB Type 4: QMB



TTB Impact Attenuators

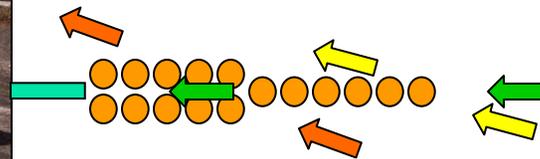


TTB Impact Attenuators (aka Crash Cushions)

- Must be re-directive with some exceptions
- Anchorage and rotation (See manuf rec)
- GREAT units can not be used after 1/1/11
 - GREAT replaced with Quadguard (Energy Absorption Systems)
 - RSP will be in contracts let after 3/1/09
- Pay only end treatment for type 2 or 4 when used as spare (SS 801.18)

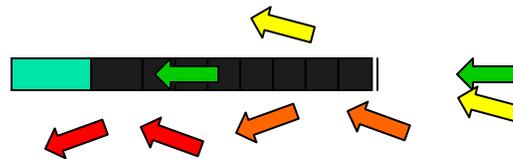


TTB Impact Attenuators



Non-Redirective

➤ *Vehicles impacting along the side at an angle go through the system (to the back side)*



Fully Redirective

➤ *Redirects all angled impacts along the side of the system*



TTB Impact Attenuators



Temporary Pavement Markings



Temporary Pavement Markings

- Materials – Paint, Tape, or Durable
 - Painted markings for winter
- Paint 2x on all HMA & PCCP
- Conflicting markings must be removed
- Maintenance
- 14 days maximum in non-std pattern



Work Zone Safety Section Central Office

- Site visits setup reviews
- Police patrol agreements
- Technical support



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