## Pennsylvania Department of Transportation

# **SAFETY POLICY HANDBOOK**



The Safety Policy Handbook, Pub 445, is a publication of the Pennsylvania Department of Transportation, developed and maintained by the Employee Safety Division. The purpose of this handbook is to communicate internal safety policies and practices to PennDOT employees, and to make these readily accessible to employees for ongoing review and reference.

The content of the handbook is consistent with the Manual for Employee Safety and Health, Pub 445M, a comprehensive compilation of the elements and protocols of the PennDOT Accident and Injury Prevention Program (AIPP).

#### History:

The original version of Publication 445, entitled Safety Policy Manual, was issued in March 2003. In 2017, with the creation of the Manual for Employee Safety and Health, Pub 445M, the title of this publication was changed to Safety Policy Handbook.

# OUR GOAL IS TO CONTINUOUSLY FOSTER A SAFETY-FIRST CULTURE EMBRACED BY ALL!

This handbook belongs to:
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## INTRODUCTION

The Pennsylvania Department of Transportation (PennDOT) is committed to protecting the safety and health of our employees, and improving productivity through accident and injury prevention and a healthier workforce. PennDOT will strive to provide our employees with the safest possible work environment and the knowledge necessary to safely carry out their job duties. Safety efforts shall be ongoing and focus on continuous improvement.

Working safely is a responsibility shared by all employees. Managers and supervisors are to maintain the safest possible working conditions by encouraging safe work practices and enforcing safety policies and procedures. All of the necessary and available agency resources shall be utilized to accomplish this important endeavor. Employees are to perform their duties in the safest manner possible and adhere to all established safety rules, procedures and work practices.

Employees are encouraged to actively participate in PennDOT's safety efforts. Participation from all levels of the organization is essential to an effective Accident and Illness Prevention Program (AIPP), and will benefit all employees, their families and the public.

Influence, control, and responsibility are the key ingredients to a successful program. If one of these items is missing or lacking, the program will be adversely impacted.

First level supervisors have the most influence on safety. They work directly with employees, observing employee behavior and work conditions, and they have the authority to address behaviors and conditions that may put employees at unnecessary risk of a work-related injury or illness. As they take an active role in promoting safety, employees are encouraged to do their part to ensure their own safety and the safety of their coworkers.

Management has the most control of safety. Management's duty is to enforce safety policies, establish procedures and direct resources.

Everyone has a role and responsibilities in the maintenance of a safe working environment. The importance of safety shall be communicated to all levels on an ongoing basis. Safety programs shall be established and supported (resources and personnel) to achieve a safe working environment.

## INTRODUCTION

The purpose of this handbook is to establish statewide safety guidelines that shall be followed by all employees. Changes to this handbook may only be made by the Employee Safety Division.

Safety shall be incorporated into all work operations from planning to completion. PennDOT is responsible for creating a safe work environment. A safe environment exists when employees are involved in decisions affecting workplace safety. Active safety committees supported by management are essential to a successful safety program.

Unsafe acts and unsafe conditions shall be prevented. When an accident occurs, we shall learn from it. The focus of the investigation shall be fact finding, not fault finding, to accurately identify causes and determine appropriate corrective actions.

Working safely is a condition of employment. Disregarding safety rules will not be tolerated.

Education and training are essential in developing and maintaining a safe work environment.

The Employee Safety Division develops and coordinates the implementation of the AIPP for all PennDOT organizations. It serves as the primary point of contact for central office organizations regarding issues pertaining to occupational health and safety for PennDOT employees.

PennDOT is geographically divided into 11 Engineering Districts, each of which has designated and empowered up to two Safety Coordinators to serve as the primary points of contact for their respective district regarding the successful implementation of the programs, policies, and protocols described in this publication.

## **GENERAL RESPONSIBILITIES**

#### Management Responsibility

- Establish, maintain and enforce safe work conditions and environments by providing proper tools, equipment, training, education and personal protective equipment (PPE).
- Establish and maintain effective lines of communication regarding safety.
- Actively engage in hazard identification during job planning and preparation. Ensure that hazards are eliminated or controlled to reduce exposures and risk as much as operationally feasible. Ensure the provision of adequate PPE if there will still be exposure to hazards and risk of injury after all controls are in place.
- Address hazards and implement controls to minimize risk of injury as soon as it is observed or reported, even if the affected employees are not in their chain of command.
- Ensure that all safety and health policies and rules have been effectively communicated and that employees demonstrate understanding and adhere to these in the work environment.
- Ensure that standard operating procedures are established for each operation, either in writing or through common understanding among all employees, that address all anticipated hazards.
- Provide and/or coordinate all required safety and health training for all employees.
- Provide and/or coordinate operational training to employees to equip them to perform all assigned tasks in a safe and competent manner.
- Provide or disseminate safety information to supervisors and/or employees as appropriate or as directed.
- Oversee and complete the documentation of all incidents and near miss investigations, in accordance with the requirements in Chapter M of Pub 445M.
- Arrange for the availability and training on the proper use of all appropriate PPE.
- Provide or coordinate the provision of job specific safety orientation and/or training to all new employees and all employees upon assignment of a new task or operation that has exposures to hazards.

## **GENERAL RESPONSIBILITIES**

#### Supervisor Responsibility

- Ensure that all employees have the proper skills, knowledge and training to perform all tasks assigned to them in a safe and competent manner.
- See to it that all employees have, use and are trained on proper PPE.
- Act safely and direct safe operations by following all safety practices identified in manufacturer publications and our policies, manuals, procedures, work rules and Job Safety Analyses.
- Respond to reports, investigate and document incidents and near misses involving your employee(s), and implement corrective actions to minimize the risk of reoccurrence.
- Implement Injury Management Procedures for all injury incidents.
- Ensure that all safety and health policies and rules have been effectively communicated and that employees demonstrate understanding and adhere to these in the work environment.
- Verify that standard operating procedures are understood by your employees prior to the start of new operation.
- Ensure that your employees receive all necessary safety and health training.
- Disseminate safety information to your employees as appropriate, or as directed.
- Be continuously aware of safety and health conditions within the work area.
- Actively engage in hazard identification and take the lead to ensure that hazards are eliminated or controlled and/or ensure that employees are adequately protected from hazards.
- Take or coordinate prompt corrective actions to address any hazard, such as an unsafe condition and an action that results in unnecessary risk, as soon as it is observed or reported.
- Ensure adequate supplies of all appropriate PPE are available prior to starting work and ensure that employees understand how to use it properly.
- Provide job specific safety orientation to all new employees and upon assignment of a new task or operation that has exposure to hazards.

## **GENERAL RESPONSIBILITIES**

- Be aware of building evacuation procedures and ensure individuals are designated to provide needed assistance to disabled personnel during emergency evacuations.
- Be aware of emergency phone numbers and certified First Aid and CPR volunteers.

#### **Employee Responsibility**

- Ensure the safety and health of yourself and your coworkers by understanding and obeying all safety rules and working in a safe manner.
- Ensure that you have, use and are trained to use the proper PPE.
   If you do not have the proper PPE, it is your responsibility to get it before beginning an operation.
- Act safely and assist safe work operations by following all safety practices identified in manufacturer publications and our policies, manuals, procedures, work rules and Job Safety Analyses.
- Report all incidents, near misses, and unsafe conditions/acts to your supervisor immediately and follow the supervisor's instructions. Be familiar with and adhere to established safety procedures, rules and work practices.
- Report all workplace hazards or safety concerns through the safety suggestion process or through the supervisory chain of command.
- Participate in all required agency safety training and education efforts.
- Avoid distractions caused by the use of personal cell phones, music players or other electronic devices while operating in a work zone.

Safety responsibilities are included in every position description and safety performance is considered in the Employee Performance Review (EPR) overall rating for work habits. Poor performance in safety should lead to an overall needs improvement or unsatisfactory rating for work habits. Similarly, if the employee meets or exceeds the safety objectives, the other components of the work habits rating factor shall be weighed in the consideration of a satisfactory, commendable, or outstanding rating.

It shall be noted that excellent overall safety performance cannot override poor performance in the other components of the Work Habits rating factor. Therefore, someone who excels at safety could still receive a rating of needs improvement or unsatisfactory for work habits, if warranted by their performance of the other components of this rating factor.

## **INSPECTIONS**

District Safety Coordinators conduct internal crew, garage and stockpile inspections in the engineering and maintenance districts. Each inspection item is assigned a score based on the level of compliance observed at the time of the inspection.

The Employee Safety Division develops and maintains the following standardized checklists:

- Crew Safety Inspection Checklist (P-6100)
- Garage Safety Inspection Checklist (P-6101)
- Stockpile Safety Inspection Checklist (P-6102)

Semi-annual office inspections are also conducted internally by safety and/or facilities staff for each occupied facility, using the Inspection Checklist for Offices (P-34). Safety and facility related items are identified as either compliant or deficient.

The outcome of these inspections is communicated to the managers that are responsible for the crew or facility during the inspection or within 24 hours, to facilitate prompt corrective action. Deficiencies are documented in detail on the checklist.

## INDUSTRIAL HYGIENE

Industrial hygiene is defined as the anticipation, recognition, evaluation, and control of environmental factors arising in or from the workplace that have the potential to cause significant discomfort, illness or impairment for employees. Industrial hygiene includes the development of corrective measures to control health hazards by either reducing or eliminating the exposure. (This definition is from the Sixth Edition of the National Safety Council "Fundamentals of Industrial Hygiene".)

Employees shall notify their supervisor or manager as soon as they are aware of any industrial hygiene related concerns (indoor air quality concerns, excessive noise levels, visible mold, etc.) Upon notification, the supervisor or manager will notify their District Safety Coordinator or the Employee Safety Division. The findings, recommendations, and corrective actions of all industrial hygiene investigations will be communicated to affected employees as needed. This information can be reported on form P-31, Industrial Hygiene Evaluation Report.

## **JOB SAFETY ANALYSIS (JSA)**

The JSA Manual, Pub 517, is intended to be an integral tool in the performance of the selected jobs or tasks, therefore a current copy shall be maintained at all applicable worksites (e.g. foreman's crew cab, stockpiles, garages, bridge inspection vans, construction offices, etc.). Pub 517 is also available on BOMODocs and the Employee Safety SharePoint Site.

#### Employees shall:

- Review all JSAs that apply to their work at least annually
- Notify the supervisor regarding any changes in the work process, identified hazards or controls
- Attend all necessary training or instruction
- · Perform work in accordance with the JSA

#### Managers/Supervisors shall:

- · Ensure that employees complete the above
- Ensure that employees are trained to complete their assigned tasks, and trained on the proper use of tools or equipment to be used in the completion of these tasks
- Ensure that JSA acknowledgement sheets are signed by the affected employees and kept on file
- Consider JSAs when completing Employee Performance Reviews (EPRs)
- Review completed/draft JSAs and provide feedback as requested
- Ensure that affected employees receive the necessary development or awareness training
- Participate on the JSA development teams as requested or assigned

Opportunities for the utilization of JSAs include, but are not limited to, the following:

- Initial training or job instruction for new employees
- Refresher or awareness training for existing employees
- · Inclusion in other training programs
- · Instruction for infrequent or non-routine jobs
- Safety talks or meetings
- Tracking changes in processes/equipment
- Accident investigations or After Action Reviews (AAR)
- Benchmarking and evaluating employee performance

## **JOB SAFETY ANALYSIS (JSA)**

Supervisors are strongly encouraged to seek additional ways to incorporate JSAs into their routine activities.

The Employee Safety Division will establish and provide direction to PennDOT regarding JSA development and assignments. Specific requests for the development of additional JSAs should be directed to District Safety Coordinators and the Employee Safety Division for review and approval. These requests should be based on current incidents/injuries, identified hazards, changes in equipment/processes, or gaps in the JSA program.

The Employee Safety Division develops and maintains the following training programs. Course registration and completion shall be recorded in Learning Management System.

#### Job Safety Analysis Awareness Training

Classroom instruction explains the purpose, application, and basic requirements of the JSA program, and is conducted by the Employee Safety Division staff and District Safety Coordinators that are also Certified Instructors.

This is required for all affected employees that are assigned tasks for which there is an existing JSA. Retraining may be conducted, when warranted by the occurrence of an accident or any evidence of an employee's lack of compliance with or understanding of the program.

## **Job Safety Analysis Development Training**

This training equips JSA development teams to produce quality JSAs, and consists of classroom instruction, and the distribution and review of the Job Safety Analysis Development Guide. Employees that are directly involved in the development of JSAs shall attend this training.

Refer to Chapter E of Pub 445M for additional information.

## **TRAINING**

PennDOT provides general safety training to all new employees through on-boarding, in-processing and the New Employee Orientation Program. All employees are issued a current copy of the Safety Policy Handbook (Pub 445).

Inquiries regarding the availability of training and educational materials for specific occupational safety topics not covered in this handbook should be directed to your District Safety Coordinator or the Employee Safety Division. The following training and educational programs are available by contacting your District Safety Coordinator, District Training Coordinator, or the Employee Safety Division.

#### **OSHA Training**

- The OSHA 10 Hour course provides a basic overview of the following topics: Introduction to OSHA, Cranes, Fall Protection, Electrical, Personal Protective Equipment, Scaffolds, Materials Handling, Stairs/Ladders, Power Tools, and Excavations. This training shall be provided to all construction field employees to equip them with general knowledge of the most hazardous aspects of the construction industry. New construction field employees should attend the OSHA 10 Hour training within six months of hire. Refresher training should occur as needed. This training may be instructor-led or web based. The districts should pursue this course through a contract with an OSHA certified instructor. District Training Coordinators and Fiscal Office staff should be involved to appropriately procure a proper training/trainer.
- The OSHA 30 Hour Construction & Industry Training course equips construction field supervisors and managers with a more comprehensive knowledge of OSHA regulations, workplace hazards, and injury prevention. This instructor-led course will be coordinated centrally every two years for districts to identify and send a minimum of two supervisors/managers to attend.

## **Safety Stand Down Days**

These events provide a forum for safety information to be communicated on a regular and consistent basis, to increase employee awareness, and to promote the reduction of workplace injuries and fleet incidents. Each County Maintenance Office shall host this event two (2) times per year and all employees are expected to attend.

## STATE EMPLOYEE ASSISTANCE PROGRAM

The State Employee Assistance Program (SEAP) is a free assessment and referral service that is designed to assist commonwealth employees and their family members in resolving a wide variety of personal problems that may lead to deteriorating employee job performance. SEAP offers services related to substance abuse, mental health issues, family issues, financial issues, legal services, and mediation.

All employees may access resources that promote health and wellness on a variety of topics at the following website: www.liveandworkwell.com. The access code is: Pennsylvania. Free, confidential consultation is also available 24/7 by calling 1-800-692-7459.

## **WORKPLACE VIOLENCE**

The Governor's Office of Administration coordinates workplace violence prevention and response, including taking steps to prevent incidents, responding to incidents, and coordinating post-incident activities to return the workplace to a normal state of operations.

Employees who are victims or witnesses of workplace violence should use good judgment by trying to diffuse the situation and remove themselves from potential danger or further physical harm.

- Remain calm and courteous while emphasizing nonviolent ways to resolve the conflict.
- Do not respond with aggressive behaviors that will escalate or intensify the incident.
- Terminate the contact with the individual as soon as possible and immediately report the incident to your supervisor.
- In serious emergency situations, report the incident to your emergency 911 center for police and/or medical assistance in accordance with your emergency response plan, prior to notifying your supervisor.

Employees who are victims of domestic violence or have filed a Protection from Abuse Order are encouraged to notify their supervisor or manager, so that they can be offered support and assistance at the workplace.

## WORKPLACE VIOLENCE

#### Supervisors shall:

- Be alert to and address undesirable or unexplainable changes in behavior with their employees in a respectful, objective, and confidential manner.
- Keep employees informed of the benefits available through SEAP and when appropriate, urge employees to contact SEAP.
- Intervene early on and initiate disciplinary or other action(s) commensurate with the behavior in question.
- Initiate the investigation and documentation of workplace violence incidents involving their subordinate(s).
- Consider contacting the SEAP Consultation Line (1-800-662-9206) if/when they may benefit from the assistance from a mental health professional that is familiar with PennDOT and commonwealth policies.
- Ensure that incidents of workplace violence are documented based on information obtained from the employee(s) and handled confidentially.

A completed Reporting Data Sheet for Incidents of Workplace Violence (P-24) shall be submitted through the chain of command to the Human Resource Field Operations Division.

## **EMERGENCY RESPONSE**

To ensure immediate and competent handling of emergency situations, emergency response and building evacuation procedures, including assembly area and roll call requirements, shall be established in all occupied facilities. Employees are encouraged to participate as members of evacuation safety teams at permanently occupied facilities to help ensure safe, efficient evacuations. Refer to Chapter I of Pub 445M and Management Directive 205.38 for additional information.

When using a fire extinguisher, employees shall use the PASS method.

- P Pull the pin
- A Aim the nozzle
- S Squeeze the handle
- S Sweep from side to side

## DAILY SAFETY TALKS

Foremen and supervisors shall ensure that safety is discussed with their subordinates at, or as close as possible to, the beginning of each work period, and as needed when conditions change. These discussions, often referred to as daily safety talks, shall include the anticipated hazards in the work to be performed and the applicable work practices to ensure employee safety.

The content of these discussions can be drawn from multiple resources, some of which are listed below.

- Mobile BOMO Documents (BOMODocs) app provides easy access through a unified gateway to construction related documents from two separate systems: PennDOT SharePoint site and Electronic Construction Management System (ECMS).
- PennDOT Daily Safety Talk Book (Pub 247) contains discussion points and narratives on a variety of topics.
- Manual for Employee Safety & Health (Pub 445M) contains policies and safe work practices.
- Job Safety Analysis Manual (Pub 517) contains completed analyses for highway maintenance operations, power tools, and heavy construction equipment.
- Understanding Confined Spaces (Pub 684), assists with identifying a confined space and the precautions that shall be taken prior to entering a confined space.
- Flagging Handbook (Pub 234) provides general guidance and safety precautions for performing flagging duties.
- Temporary Traffic Control Guidelines (Pub 213) includes notes regarding safe work practices.
- Highway Foreman Manual (Pub 113) includes some safety considerations for maintenance operations.
- Equipment Maintenance and Management Policies Manual (Pub 177) contains guidance pertaining to fleet and equipment vehicles.
- Safety Data Sheet (SDS) provided by the manufacturer for any chemical product present at a PennDOT facility or job site, containing information and guidance for the safe handling, labeling, and storage of the product, including appropriate personal protective equipment and first aid.
- Employee Handbook for Garage Safety
- Hand and Power Tool Safety booklet
- Checklists for safety inspections for crews (P-6100), garages (P-6101), and stockpiles (P-6102).

## SUGGESTION PROGRAM

Employees are encouraged to take initiative and actively engage in reporting and addressing workplace hazards. The safety and health suggestion program has been established for all work locations to include up to three methods for employees to submit concerns and ideas.

Employees are encouraged to submit suggestions and concerns directly to their supervisor or manager (the chain of command), a District Safety Coordinator or a safety committee member, especially those that might require a more urgent or timely response. Supervisors are responsible to consider each suggestion and concern that they receive and to ensure a timely response.

The Safety and Health Suggestion Form (P-33) is available for organizations to use, at their discretion, for employees to report suggestions for improving the health and safety of their work environment, to report unsafe acts and/or hazards, and to suggest ideas for performing tasks safer. Organizations that use this form shall ensure effectiveness as directed in Chapter J of Pub 445M.

Employee opinions and involvement in the safety process are valued, therefore suggestions are reviewed promptly, thoroughly, and objectively. Regardless of the method that was used to submit a suggestion or concern, submissions will be reviewed by a Safety Coordinator, a Safety Committee at regularly scheduled meetings, and/or the Employee Safety Division to ensure a timely response. Employees that provide their name or contact information on their submission will receive a direct response to their concerns or suggestions. Responses to anonymous suggestions are posted or communicated in a manner that is accessible to all employees. When appropriate, senior management and affected employees are notified of changes that result.

## **SAFETY COMMITTEES**

Safety committees shall be established in each district and county. They may also be established in other organizations, as appropriate. When possible, committee membership shall consist of an equal representation of management and union employees.

The purpose of safety committees is to regularly bring workers and management together in a non-adversarial, cooperative effort to promote safety and health in the workplace. Committees are empowered to routinely identify and recommend solutions to senior management for PennDOT's safety and health related issues.

Safety committees shall meet the following criteria:

- Have an equal representation of union and management employees (never more management than union)
- · Meet at least once each quarter
- Represent and review concerns from all work locations
- Set annual goals and objectives, and communicate their status and accomplishments to senior management
- Communicate meeting agendas and safety related information with management, committee members, and employees
- Record meeting minutes, and post them in a prominent place at all the locations it represents
- Assist in the identification and correction of workplace hazards
- Review and/or investigate incidents and make recommendations to prevent recurrences
- · Review safety suggestions

Training for committee members includes Principles of Hazard Identification, Accident Investigation and Safety Committee Operations. Recognition through the Department of Labor and Industry is optional.

Refer to Chapter K of Pub 445M for additional information.

## **RULES AND ENFORCEMENT**

PennDOT uses the charge of Safety Violation for safety-related infractions to ensure that these are treated appropriately and uniformly. The following examples of safety-related infractions are not intended to be all encompassing.

- Minor violations of safety rules, including unsafe acts committed while operating PennDOT equipment.
- Any act which might endanger the safety or lives of others.
- Willful, deliberate or repeated violation of PennDOT safety rules, including instances where there is evidence of disregard of proper safety practices and precautions while operating PennDOT equipment.
- Failure to immediately report illness or injury occurring on the job to your supervisor.
- · Refusing medical attention when supervisor deems it necessary.
- Supervisor/manager refusing to seek medical attention for an injured employee who requests medical attention.
- Using equipment for purposes other than its designed use.
- Committing or allowing minor violation of safety rules including unsafe acts and failure to use personal protective equipment.
- Failure to comply with proper work zone traffic controls.
- · Failure to use seatbelts.
- Operating any equipment in which the safety features have been removed or disabled, or that is deadlined.
- Engaging in horseplay that could result in injury.
- Running on stairs or in corridors in office buildings.

#### **Enforcement**

A Pre-Disciplinary Conference (PDC) will always be held when there is evidence that a Safety Violation may have occurred. After evaluation of the investigation and PDC, appropriate disciplinary action will be imposed when it is determined that a Safety Violation occurred. Although many of the disciplinary actions issued under the charge of Safety Violations may be progressive in nature, all discipline will not necessarily be progressive, in that each level of discipline does not have to be imposed. The specific circumstances of each situation will be taken into consideration when determining the appropriate disciplinary action, and the manager will continue to follow all applicable contractual provisions and principles of due process and just cause.

## **RULES AND ENFORCEMENT**

PennDOT working rules have been in place since 1980 and provide appropriate consequences for noncompliance with safety rules. Members of management are expected to comply with and enforce these rules. All supervisors and employees are expected to comply with these policies.

The following rules have been established to prevent or reduce the severity of injuries and fleet incidents, based on PennDOT's injury and incidents data.

- Employees are not permitted to ride on vehicles and equipment unless specifically designed for the purpose of transporting employees. The only exception is the self-propelled widener when it is actively engaged in performing an operation and requires that all the widener protocols are followed to permit the exception. (Employees are "actively engaged in the operation of equipment" when that equipment is actively performing the specific function it was designed to perform, such as a paver actively applying asphalt.) If active engagement in the operation of equipment is suspended briefly while the equipment is in motion to reposition, the personnel required to operate it may remain on it as long as the speed and configuration of the equipment and the positioning of the employees are the same as when the equipment is actively performing its function.
  - During active instruction, a certified operator instructor or the foreman will be considered actively engaged in the operation of equipment only on self-propelled pavers, wideners, milling machines and stone chippers. No other equipment is designed with a relatively safe place for the instructor to be on the equipment while it is in motion.
  - Only vehicles with an enclosed cab that are equipped with seating and a seat belt for each occupant are permitted to be utilized to transport employees when they are not actively engaged in the operation of equipment. A crew cab is one example of a vehicle permitted for use to transport staff.
  - Equipment shall not be used to transport other employees from one location to another for a matter of convenience. If any employee is observed riding on equipment inappropriately, the employee(s) will be subject to disciplinary action.

Employees shall follow the manufacturer's equipment specific instructions for seat belt use even when equipment has a rollover protective structure (ROPS). ROPs will be evaluated (if available from the manufacturer) when purchasing new equipment.

## **RULES AND ENFORCEMENT**

- Work zone traffic control is required for all highway operations in accordance with the Temporary Traffic Control Guidelines (Pub 213).
- Backing vehicles shall remain in gear while in motion. Vehicles with inoperative back-up alarms shall be taken out of service until the alarm is in working condition.
- Any vehicle or unit of equipment that has been determined unsafe or illegal to operate, shall be removed from service and repaired, in accordance with the Equipment Maintenance and Management Policies Manual (Pub 177).
- Employees shall maintain three points of contact when mounting and dismounting construction vehicles and equipment.
- Appropriate personal protection equipment shall be worn properly, when and where it is required.
- Animals and pets shall not be brought to State government owned/leased property or vehicles for other than official purposes.
   Service dogs or other service animals used to guide or assist persons with disabilities are exempt.

## **RECOGNITION**

PennDOT encourages recognition for employees who perform their job duties in a safe manner, as described in this section.

## **Individual Employee Award**

Eligible employees shall be presented the individual award, if they meet the following criteria, based on fiscal year statistics from July 1, 2002 to present. (Once an employee has an OSHA recordable work-related injury or disciplinary action for a safety violation, the number of years for the above criteria is reset to zero.)

- One year or more without an OSHA recordable work-related injury, and;
- One year or more without disciplinary action for a safety violation.

Only permanent maintenance, construction, survey, and bridge inspection personnel who are assigned continuous field duty, are eligible for the Individual Employee Award.

## RECOGNITION

#### **Organization Award for Meeting Safety Goals**

District/county organizations that meet or exceed all PennDOT's organizational safety goals may be recognized on a yearly basis for that year's accomplishments. Offices and Bureaus that have garage or field operations, including Driver License Examiners, that monitor accident rates may also provide an organizational award if they meet or exceed PennDOT's organizational goals.

#### **Maintenance Organization Awards**

The purpose of this award is to encourage and reward maintenance organizations that display an exemplary commitment to safety and safety improvement. Most personal injuries and vehicular incidents occur in the maintenance environment. That is why this program will focus on the Department County Maintenance Organizations and the Fleet Management Division. To reward those organizations that have demonstrated a commitment to safety by their safety records, acknowledgements of continuous improvement will be offered.

Acknowledgement for each of the following will be in the form of a piece of equipment or tools that will serve to improve operational efficiencies and enhance safety:

- Achieving their annual injury rate reduction goal for OSHA recordable work-related injuries and no fatalities.
- Achieving their annual fleet accident rate reduction goal and no fatalities.
- Achieving all annual rate reduction goals and 1,000 consecutive days without a disabling injury in the same year.

Additional information is available in Chapter L of Pub 445M.

## FLEET/EQUIPMENT ACCIDENT PROCEDURES

Employees involved in a fleet or equipment accident while operating a PennDOT vehicle shall report the accident to the supervisor immediately. The employee(s) or an on-site supervisor should secure the scene to prevent further injury or damage and call 911 if emergency response is necessary. Work-related injury procedures apply if an employee is injured in a fleet or equipment accident.

The employee or supervisor shall notify state or local police and request an investigation of the fleet or equipment accident unless <u>all</u> the following conditions are met:

- · The accident only involved PennDOT vehicles;
- There was no personal injury or fatality;
- · Damage to the PennDOT vehicle(s) is less than \$2,000; and
- · The vehicle does not have to be towed.

A fleet or equipment accident which results in a fatality, serious personal injury, and/or property damage over \$20,000 shall be the subject of an immediate investigation. The operator shall be immediately suspended from operating PennDOT vehicles until the accident is investigated and the District Executive/Bureau Director approves reinstatement of operator privileges.

Supervisors shall promptly notify management of the accident.

If the employee was operating a commercial motor vehicle when the accident occurred, post-accident drug and alcohol testing may be required. The employee is responsible for the post-accident information in the Employee Guide to CDL Drug and Alcohol Testing, and the supervisor/manager is responsible for the post-accident testing information in the Commercial Driver License Drug and Alcohol Testing and Related Procedures (M505.5) manual.

Supervisors shall document the accident and complete a thorough on-site investigation using the Fleet & Equipment Accident Grab and Go (Pub 806) and the Investigation Guide for Accidents and Near Misses (Pub 807). All forms shall be typed and submitted to the District Safety Coordinator within 24 hours.

The local Equipment Manager or the Fleet Management Division shall also be notified to ensure all accident reporting procedures are completed as directed in Chapter 5 of the Equipment Maintenance and Management Policies Manual (Pub 177).

Employees shall report injuries to their supervisors immediately.

The following shall be done immediately:

- Call 911 (if emergency medical care is necessary).
- · Secure the area to prevent further injury.
- Notify police (if involving damage to private property or injury to non-employees).
- For non-emergency medical care, accompany or appoint an employee to accompany the injured employee to the panel physician.

#### Supervisors shall:

- · Notify management.
- Document the injury accident and complete a thorough on-site investigation using the Work-Related Injury Grab and Go (Pub 805) and the Investigation Guide for Accidents and Near Misses (Pub 807).

The most important step in the injury management process is to provide immediate medical care. The type of medical care required is determined by the severity and type of injury.

Supervisors use the following guidelines to determine the type of medical care required. If there is any doubt concerning the need for professional medical care, then it should be provided as a precautionary measure. If an employee requests medical treatment, it is the supervisor's responsibility to see that the employee receives it. If the supervisor determines that professional medical treatment is necessary, the injured employee shall comply.

## Injuries that require immediate professional medical attention:

- Amputations
- Bone fractures
- Burns: First degree thermal burns (resembling sunburn) on more than 9% of body area, second degree burns with blister formations on damaged skin, third degree burns with skin destruction (flesh charred brown or white), chemical burns (potential damage of skin, eyes and/or lungs from acid and alkali exposures), and electrical burns (skin and tissue damage as in first, second and third degree burns from electrical voltage)

- Head injuries
- Foreign bodies (if embedded in eye or a wound)
- Injuries from temperature extremes (heat illness/frostbite)
- Injuries that prevent normal use of body functions (breathing, hearing, sight, sense of smell, use of arms and legs, circulation of blood, consciousness, etc.)
- Injuries to employees with medical conditions that could increase the severity of the injury or complicate the healing process (diabetes, severe allergies, heart disease, lung disease, hemophilia, prescription medication, etc.)
- Insect bites and contact with poisonous plants if condition interferes with the performance of duties or normal use of body functions
- Lacerations (if they require sutures, butterfly or steri-strips, or involve the removal of torn flesh)
- Musculoskeletal based on case and severity (sprain, strain, inflammation, irritation, and/or dislocation involving muscles, tendons, ligaments, nerves, joints, and/or bones)
- Poisoning or disease (from chemicals and animal bites)
- Puncture wounds (includes animal bites)
- Radiation (sunburn over 9% of body and all welding flash eye burns)
- Respiratory disorders (from fumes, dust, chemicals, heat)
- Severe abrasions and contusions (large area, deep wounds, loss of blood external and internal)
- Skin disorders (from chemicals and organisms)

# Injuries that may be treated by individuals with knowledge of first aid procedures (these injuries shall be monitored until healed):

- First degree burns on less than 9% of body area
- Foreign bodies (not embedded in eye or wound)
- Insect bites or contact with poisonous plants with no symptoms of a disease transmission or a major allergic reaction
- Minor abrasions and contusions (small area, shallow wound, small blood loss external or internal)

• Surface/shallow lacerations that do not require skin support to heal (e.g. butterfly bandages, stitches).

#### If Employee Is Treated at the Work Site (First-Aid):

 If professional medical attention was not needed for the employee, the procedures for documenting near misses apply. The Accident Investigation Report (P-25) and witness statement forms shall be completed. A Workers' Compensation Claim Form shall be used to document the injury and be filed with the near miss report. The type of claim shall be indicated as Incident Only. If at any time the employee seeks professional medical attention for this injury, the type of claim shall be changed to Medical Only or Lost Time based on the outcome.

#### If Employee Requires Professional Medical Attention:

- For a medical emergency, call appropriate emergency response number.
- When emergency medical care is not necessary, the supervisor shall give the injured employee an opportunity to choose from the designated panel physician list. The supervisor or designee will then contact such panel physician to obtain medical treatment. Reasonable efforts shall be taken to ensure panel treatment is utilized, such as contacting at least three panel providers for availability. If a panel physician is not available, take the employee to the nearest medical facility. Follow-up treatment shall be with a panel physician.
- The supervisor or designee shall accompany the injured employee to the medical facility. The supervisor or designee shall remain with the injured employee until the following conditions have been met:
  - The medical provider has received a copy of the Work-Related Injury Identification Card (for insurance purposes).
  - The letter regarding the Transitional Duty Program and the Return to Work Status Report form (or equivalent). Employee may not return to work until a completed form is submitted.
  - The Employee Notification of Medications has been completed/signed by the medical provider (for CDL employees only).
  - The employee shall be given a Key Scripts Card to use if prescribed medication. This card can be activated by the manager/supervisor or Work-Related Injury Services.

- If it is deemed necessary to notify the injured employee's emergency contact, consult with management for proper procedures.
- The supervisor should provide transportation home for an employee who has a work-related injury or illness if the employee has no other transportation.
- The supervisor shall follow-up with the employee weekly until the employee returns to work.

#### Related links:

#### **Panel Doctors List by County**

http://panels.homsinc.net/viewPanel.php

#### Return to Work Status Report

https://www.hrm.oa.pa.gov/workplace-support/workers-comp/Pages/forms-tools.aspx

#### **CDL Employee Prescription Medications Form**

(Found in Employee Guide to CDL 01-18, Appendix B) https://www.hrm.oa.pa.gov/workplace-support/drug-alcoholtest/Documents/cdl-employee-drug-alcohol-guide.pdf

# **Key Scripts Benefits Management Instructions for Workers' Compensation Prescription Benefit Claims.**

https://www.pa.gov/agencies/hrmoa/programs/workplacesupport/workers-comp/forms-tools.html

## Notification to Employees of their Rights and Duties

https://www.hrm.oa.pa.gov/workplace-support/workers-comp/Pages/forms-tools.aspx

## Notice to Employees - Work-Related Injury Leave Information

https://www.hrm.oa.pa.gov/workplace-support/workers-comp/Pages/forms-tools.aspx

## Worker's Compensation Claim Form JPA-797

https://www.hrm.oa.pa.gov/workplace-support/workers-comp/Pages/forms-tools.aspx

Supervisors shall have all required forms completed and submitted to their local District Safety Coordinator within 24 hours of the injury.

#### **Required Timelines**

Notification to the Work-Related Injury Services shall occur:

- Immediately for a fatality.
- Within two (2) work days for a claim with an anticipated absence of eight (8) or more days.
- · Within five (5) work days for a medical-only claim.

#### Serious Injuries/Incidents that Require Immediate Reporting:

PennDOT procedures require the immediate reporting of serious injuries and incidents that occur in PennDOT work zones, on PennDOT worksites, or on PennDOT projects that impact the welfare of PennDOT employees. This reporting is critical to ensure that necessary actions can be taken. District/counties shall communicate this information to the District Safety Coordinator immediately.

Upon receipt of notification of an injury or incident, the District Safety Coordinator shall immediately report all known details via telephone or email to the Employee Safety Division. Districts shall then submit the Injury/Incident Notification Form (P-17) to the Employee Safety Division no later than two (2) hours from the time of the incident.

The following are examples of injuries and incidents that shall be reported immediately:

- A catastrophic work-related injury or injuries.
- A non work-related death or deaths on the work premises.
- An incident where PennDOT is involved in a catastrophic injury or injuries to the public.
- When two (2) or more employees are injured in the same incident.
- When attention by the press is anticipated.
- When the incident involves a work zone intrusion.

NOTE: This is not an all-inclusive list of what shall be reported.

#### **Return to Work**

An employee shall not be allowed to return to work after an injury without a written release from the treating physician. If the employee has physical restrictions that prevent them from performing their full duty job, refer to the Transitional Duty section below.

Notify Work-Related Injury Services immediately upon the employee's return to work so that the Third Party Administrator can be notified.

If a work related injury to a CDL employee results in an absence of 30 or more consecutive calendar days, a negative pre-employment test result shall be obtained before they can perform safety sensitive duties.

#### **Transitional Duty**

This policy applies only to work-related injuries. For non work-related injuries, consult with PennDOT's disabilities service coordinator. This policy shall be applied consistently with federal laws and commonwealth policies.

PennDOT is committed to providing transitional duty when operationally feasible for an employee who is unable to perform their normal assignment(s) due to a work-related injury, but capable of fulfilling the requirements of a transitional work assignment for a limited period of time not to exceed ninety (90) calendar days. Requests for extensions beyond 90 calendar days require prior approval from the Office of Administration, Human Resource Service Center, and Work-Related Injury Services (WRIS).

Transitional work is any job, task, function, or combination of tasks or functions that an employee with restrictions may perform safely and without the risk of re-injury. In cases where an employee's restrictions preclude performing their pre-injury job (or a particular aspect of the job), every reasonable effort shall be made to identify a productive job assignment that will accommodate temporary restrictions as identified by the treating physician. An employee on transitional duty may be utilized for overtime work unless physically restricted by the treating physician.

Assignments for transitional work in addition to particular aspects of the employee's regular duties may include but are not limited to: (refer to Pub 549 Transitional Duty Job Examples for additional information)

- Clerical/Receptionist
- Parts Runner
- Flagging Duties
- Yard/Building Maintenance
- · Litter Pickup
- Operate Shadow Vehicle

- · Administrative Duties
- · Radio Operator
- Custodial
- Inventory
- · Equipment Cleanup

Non-civil service employees may not be assigned civil service duties. No higher level work may be assigned as transitional work per the Management Directive 530.2, Injury Leave Manual.

A copy of the Return to Work Status Report form shall be given to the treating physician to ensure awareness of PennDOT's transitional duty program. If the criteria for transitional duty are met and suitable transitional duty work is available, the manager/supervisor or WRIS shall direct the employee to return to work. The manager/supervisor shall then contact WRIS specialist assigned to the injury claim to coordinate a formal letter to be sent to the injured employee detailing the transitional duty assignment prescribed by the treating physician. If the WRIS specialist receives medical documentation prior to the contact from the injured employee's manager/supervisor releasing the injured employee to work, then it is the responsibility of the injured employee to contact their manager/supervisor to coordinate this process.

## To Offer Transitional Duty, Comply with the Following Steps:

- 1. Obtain medical documentation identifying physical restrictions that affect the employee's essential job functions.
- The County Manager/Bureau Director/Manager of the injured employee, in collaboration with Work-Related Injury Services, determines whether transitional duty is operationally feasible. If feasible, develop a description of duties for the injured employee to accommodate the restrictions.
- The Supervisor and Manager shall meet with the injured employee to explain transitional duties, answer questions, and review their responsibilities listed in Chapter G of Pub 445M.
- Work-Related Injury Services will provide a Return to Work Modified Duty Letter.

- The supervisor shall ensure that the employee stays within the restrictions as specified on the medical form by the panel/treating physician.
- 6. Employee shall obtain periodic medical updates (at least every 30 days) and provide them to their supervisor. Management will determine if transitional duties may continue or are appropriate based on the type of work normally performed, the nature of injury, and medical restrictions. Copies of all medical documentation shall be provided to the Work-Related Injury Services.
- 7. The supervisor shall ensure that the employee inputs leave for all medical appointments and reasonable travel time occurring during scheduled work hours.
- 8. Ensure compliance with the CDL Drug & Alcohol Testing Program. A CDL employee is required to submit to a pre-employment drug test if absent for 30 or more consecutive calendar days and unavailable for random testing. Verification of a negative pre-employment test result by OA is needed before being placed on safety sensitive duties.

## **NEAR MISS PROCEDURES**

A near miss is an event that was observed to have had the potential to be categorized as an accident, but did not result in property damage, an injury or illness requiring professional medical attention, or a fatality. This may include, but is certainly not limited to, work zone intrusions that do not result in an accident. The Near Miss Report Form (P-73) and/or the Accident Investigation Report (P-25), and witness statement forms shall be completed to document near misses.

If a near miss has the potential for the development of a future injury or future medical issue, then it should be documented as an incident only under workers comp in ESS. The Near Miss form and witness statement should also be sent to OA Injury.

## **ACCIDENT AND NEAR MISS INVESTIGATION**

In the event a Near Miss Report Form (P-73) is completed and further investigation is warranted, please follow the below process.

Once the investigating supervisor has gathered documentation of all available information, two managers shall meet with the investigating supervisor to discuss and complete page 2 of the Accident Investigation

#### **ACCIDENT AND NEAR MISS INVESTIGATION**

Report (P-25). The investigating manager(s) will use pages 4-9 of Pub 807 (The Investigation Guide for Accidents and Near Misses) to identify the causes and appropriate corrective actions of the incident(s) and to minimize the risk of repeat incidents.

The two fundamental questions that shall be answered during the investigation are:

- What hazards caused the accident or near miss?
- What can be done to keep it from happening again?

Causes are divided into four categories as follows:

- 1. Equipment (pertaining to equipment, tools, and material)
- Conditions (pertaining to the work site configuration and conditions, such as weather, ambient noise, lighting, traffic control, etc.)
- Preparation (pertaining to the detection, control, and correction of hazards prior to the start of work, such as job planning and employee training)
- 4. Procedures (pertaining to job procedures and personal protective equipment)

The following hierarchy of controls shall be used as a means of determining how to implement feasible and effective corrective actions to address causes. These are listed below in the order of effectiveness, from most effective to least effective, along with some examples of each.

- Elimination and Substitution eliminates the hazard by using different equipment or processes that achieve the same outcomes. For example:
  - a. Replace a manual operation with robotics.
  - b. Replace old equipment with a newer model that is equipped with safety devices.
- Engineering controls incorporate safety mechanisms into the design of equipment or the configuration of the work site, or introduce new equipment, that will reduce or eliminate employee exposures to the hazard.

For example:

- a. Provide a mechanical lifting device for a manual lifting task that requires heavy exertion.
- b. Localized ventilation.

## **ACCIDENT AND NEAR MISS INVESTIGATION**

- Administrative controls implement new (or modify existing)
  methods for detecting and addressing hazards, which include, but
  are not limited to:
  - a. Planning
  - b. Policies
  - c. Procedures
  - d. Job Safety Analysis Manual (Pub 517)
  - e. Training and certification programs
  - f. Inspection processes and checklists
  - g. Maintenance schedules
  - h. PennDOT Daily Safety Talk Book (Pub 247)
  - i. Pre-operation process
  - j. Design strategies
  - k. Communication/warning systems
  - I. Job/employee selection
- 4. Personal Protective Equipment (PPE) shall be implemented when feasible controls have been utilized and hazard exposures still exist. Employees are provided with protective equipment to reduce the risk of severity of the inevitable exposure. Refer to Protocol 2 of Pub 445M for examples and additional information.

Management is responsible to ensure that all corrective actions are implemented in a timely manner.

If there is evidence of a safety violation after the investigation has been completed, the enforcement procedures will be followed as described in the Rules and Enforcement section.

## **MEDICAL SUPPLIES AND SERVICES**

The availability of first aid supplies to employees is required for the treatment of minor injuries that occur in the workplace. Every facility shall have a minimum of one first aid kit per 100 employee occupants. Every work crew shall have a minimum of one first aid kit per crew at the job site.

The supervisor of the unit or crew where a first aid kit is located is responsible for maintaining the contents of the kit, ensuring that there are sufficient supplies for the employees accessing each kit. Kits shall be stored at a location that is clearly marked and easily accessible to employees. Items with expiration dates shall be replaced before they expire. First aid kits shall not contain any pain or personal medications or expired items.

First aid kits shall meet or exceed the ANSI Z308.1-2015 Class A requirements indicated in the table below.

CLASS A FIRST AID KIT AND REQUIRED SUPPLIES PER ANSI Z308.1-2015			
First Aid Supply	Minimum Quantity	Minimum Size or Volume	
Adhesive Bandage	16	1 x 3 in.	
Adhesive Tape	1	2.5 yd.	
Antibiotic Application	10	1/57 oz.	
Antiseptic	10	1/57 oz.	
Breather Barrier	1	N/A	
Burn Dressing (Gel Soaked)	1	4 x 4 in.	
Burn Treatment	10	1/32 oz.	
Cold Pack	1	4 x 5 in.	
Eye Covering (with Means of Attachment)	2	2.9 sq. in.	
Eye/Skin Wash	1	1 fl. oz.	
First Aid Guide	1	N/A	
Hand Sanitizer	6	1/32 oz.	
Medical Exam Gloves	2 pair	N/A	
Roller Bandage (2 inch)	1	2 in. x 4 yd.	
Roller Bandage (4 inch)	0	4 in. x 4 yd.	
Scissors	1	N/A	
Splint	0	4.0 x 24 in.	
Sterile Pad	2	3 x 3 in.	
Tourniquet	0	1 in. (width)	
Trauma Pad	2	5 x 9 in.	
Triangular Bandage	1	40 x 40 x 56 in.	

#### MEDICAL SUPPLIES AND SERVICES

In the absence of an infirmary, clinic, hospital, or trained emergency service provider in near proximity to the workplace, a person or group of persons should be adequately trained to render CPR and/or First Aid, including the proper use of an AED.

Volunteer employees shall be willing to perform CPR/First Aid services if the need arises. Employees shall successfully complete training and maintain a valid certification. Employees trained in CPR/First Aid may have their names and telephone numbers made available or prominently posted so that anyone in need of their services can contact them. They shall not offer services or medical assistance falling outside their level of training to assure adequate protection under the Good Samaritan law.

Refer to Chapter N of Pub 445M for additional information.

#### **WORK ATTIRE**

All employees engaged in or entering any field operation involving maintenance, construction, design, surveying, inspections, etc. (on or off state right-of-way) shall dress appropriately for the climatic conditions and temperatures in which they work. Proper work attire is required and considered a condition of employment.

#### Requirements:

- Shirts with unaltered sleeves that are 6 inches or longer from the seam. See through clothing is prohibited.
- Full length trousers. Sweatpants and capris are prohibited.
- Work shoes shall be of above the ankle design and have good tread to help prevent slips, trips and falls. Athletic footwear, such as sneakers and tennis shoes, are prohibited.

#### Recommendations:

- Light-weight, light-colored, cotton or cotton-blend shirts when working in intense sun and extreme heat.
- When working in severe cold, wind, rain, sleet or snow:
  - o Dress in layers.
  - Wear wool or wool blend clothing.
  - Wear a skull cap, cold weather hard hat liner, gloves and glove liners.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

PennDOT recognizes that engineering and administrative controls are the preferred methods for addressing hazards. PPE is provided when such controls do not effectively eliminate the risk of employee exposure to occupational hazards.

The use of proper PPE is required and considered a condition of employment. PPE is provided by PennDOT and is available to all employees as needed. All PPE shall be PennDOT approved.

Supervisors are responsible for ensuring that all employees under their supervision are issued, instructed on and properly using all required PPE.

Additional information is available in Protocol 2 of Pub 445M.

## PPE - HIGH VISIBILITY APPAREL

#### **General Requirements**

All employees engaged in or entering any field operation involving maintenance, construction, design, surveying, inspections, etc. (on or off state right-of-way), or exposed to moving vehicles and equipment, are required to wear PennDOT issued high visibility apparel to provide conspicuity, as follows:

- During daylight hours, an ANSI Class 2 garment is required.
- During hours of darkness, an ANSI Class 3 garment is required. (ANSI Class E reflective leggings or chaps worn in combination with an ANSI Class 2 garment meets this requirement.)
- While performing flagging duties, both the ANSI Class 3 vest and the ANSI Class E chaps are required.
- Only during inclement weather (active, impending or intermittent precipitation), the ANSI Class 3 raincoat and ANSI Class E rain pants may be worn to meet the above requirements.
- Employees that conduct construction or safety-related site visits at transit systems and freight-related carriers may wear different high visibility apparel only when required to do so by that transit system or freight-related carrier.

Employees are responsible for the proper and routine care of the garments issued to them, as instructed on the care label attached (sewn or ironed on) to the inside of each garment.

#### **Vests**

All employees, including management and temporary, engaged in or entering any field operation involving maintenance, construction, design, surveying, inspections, etc. (on or off state right-of-way) or exposed to moving vehicles and equipment, shall be issued a vest. PennDOT issues a multicolor fluorescent yellow vest with orange stripes and gray reflective trim. The vest without sleeves meets the ANSI Class 2 requirements. The vest with sleeves meets the ANSI Performance Class 3 requirements. At minimum, a shirt with sleeves shall be worn under the vest. Organizations shall purchase these vests from UniqueSource.

Employees are responsible for the proper donning and care of these garments, as follows:

- The garment shall be worn with the reflective striping facing outward.
- The front of the vest shall always be closed using the Velcro tabs in proper alignment.
- All surface area of this garment shall be exposed. Nothing is permitted to be worn on top of this garment.
- The garment shall not be modified or decorated.
- All warning and washing instructions on the tags that are attached (sewn) to the inside of the garment shall be followed.
- Do not store in direct sunlight.
- Level of performance cannot be guaranteed if the safety vest is faded or worn through on the background material or reflective material.
- For vests with adjustable sides:
  - The front panels of the vest shall always be attached to the back panel of the garment by overlapping the front tab over the back panel and attaching the Velcro in proper alignment.
  - The gaps between the front panels and back panel on the sides of the garment shall never exceed 1.97 inches in width.

#### T-shirts/Sweatshirts

All union covered rank and file, permanent maintenance, construction, survey and bridge inspection personnel who are assigned continuous field duty, including union covered first level supervisors, will be provided PennDOT issued ANSI Class 2 t-shirts, ANSI Class 2 long sleeve shirts, and ANSI Class 3 sweatshirts. Managers, summer interns, employees performing clerical and/or administrative duties and employees that are issued uniforms (such as mechanics) are not eligible. One ANSI Class 2 t-shirt **or** one ANSI Class 2 long sleeve shirt and one ANSI Class 3 sweatshirt should be issued while the employee is in temporary classification.

Eligible employees must be given the opportunity to order up to five t-shirts or a secondary option of two long sleeve shirts and three short sleeve t-shirts for the spring of even numbered years and one sweatshirt for the fall of even numbered years to be purchased by PennDOT. This process will repeat every two years. T-shirts, long sleeve shirts, and a sweatshirt may also be ordered for eligible new employees upon hire. Organizations shall purchase the t-shirts, long sleeve shirts, and sweatshirts from UniqueSource.

The ANSI class of the garment is based on its design when purchased. These garments <u>must not be modified in any way.</u> Modified garments will be considered non-compliant. T-shirts, long sleeve shirts, and sweatshirts will not be replaced by the employer due to fading, wear and/or tear, therefore a vest must be worn when the t-shirt, long sleeve shirt, or sweatshirt is deemed non-compliant by a supervisor or management.

Beyond the PennDOT allotment, permanent and temporary employees will be allowed to purchase their own t-shirts, long sleeve shirts and sweatshirts directly from UniqueSource only. For t-shirts/long sleeve shirts, there is a minimum of 12 shirts per order and orders less than four dozen (48) shirts will have freight added. For sweatshirts, there is no minimum number to order or additional freight. Organizations cannot assign this additional ordering to an employee as a work duty. Employees who want to go together to order shall do so during nonwork hours. Employees can order from UniqueSource by calling 1-800-447-8860 or visiting www.uniquesource.com.

#### **Leggings and Chaps**

PennDOT provided ANSI Class E high visibility leggings and chaps are optional for daylight operations other than flagging. While performing flagging duties, both the ANSI Class 3 vest and the ANSI Class E chaps are required. Supervisors may require leggings or chaps anytime they determine additional conspicuity would enhance safety. Organizations shall purchase the high visibility leggings and chaps from UniqueSource.

#### Rainwear

All employees engaged in or entering any field operation involving maintenance, construction, design, surveying, inspections, etc. (on or off state right-of-way) or exposed to moving vehicles and equipment are eligible to be issued rainwear.

In lieu of wearing a vest, t-shirt, long sleeve shirt, sweatshirt or jacket, rainwear can be worn during inclement weather (active, impending, or intermittent precipitation).

If rain pants are not worn with the raincoat during inclement weather, all employees exposed to moving vehicles and equipment during nighttime operations will be required to wear high visibility/reflective leggings or chaps in combination with the raincoat.

The rain coat meets or exceeds ANSI Class 3 specifications and the rain pants meet or exceed ANSI Class E specifications.

All high visibility rainwear is on contract and organizations shall purchase it from Pennsylvania Correctional Industries (PCI).

#### **Jackets**

High visibility yellow jackets meeting ANSI Class 2 or 3 standards will be considered acceptable safety attire and can be purchased and worn by the employee. PennDOT will not purchase jackets for employees. The jackets shall contain a label/tag to show that the jackets are either ANSI Class 2 or 3 compliant. Employees will be allowed to purchase the high visibility jackets from any store.

Pullover hoodies or closeable hoodies fall under the classification of sweatshirts. The only authorized sweatshirt to be worn as the outer most high visibility safety apparel is the PennDOT authorized sweatshirt produced by UniqueSource that is either issued to the employee or the employee purchases directly from UniqueSource.

#### **Replacement Cycles**

The replacement cycles for vests, leggings/chaps and rainwear may vary depending on the type of work and the environmental factors they are exposed to, and the care of the garment.

Therefore, replacement of these garments shall be determined based on visual inspection. The District Safety Coordinator shall establish procedures to ensure these garments are visually inspected annually, at a minimum.

High visibility vests, leggings/chaps and rainwear shall be replaced when fading, soiling, wear and tear renders the conspicuity of the garment inadequate.

Prior to reissuing, the vests, leggings/chaps and rainwear that are returned in good condition shall be washed by the bureau/district/county. In general, garments shall only be worn by the employee to whom it was issued unless the garment has been washed by the bureau/district/county.

# **PPE - HEAD PROTECTION**

All employees shall wear PennDOT issued hard hats:

- When engaged in or entering any field operation involving maintenance, construction, design, surveying, inspections, etc. (on or off state right-of-way).
- When there is a clear and present danger of falling objects.
- · When exposed to falling or flying material.
- When exposed to overhead electrical conductors.
- · At the direction of a manager/supervisor.

NOTE: Although hard hats are required for the above described circumstances, there may be a need to perform a certain task (e.g., using telescopic lenses, climbing under vehicle for repairs, etc.), which may require the employee to temporarily remove the hard hat to accomplish the task. The hard hat shall be replaced on the head when the task is completed.

Exemptions for wearing hard hats:

- At PennDOT facilities to include stockpiles, garages and yards unless engaged in or entering an operation where danger exists as described on the previous page.
- While operating equipment with an enclosed cab or overhead impact protection.

### PPE - HEAD PROTECTION

#### **Color Requirements**

- Yellow-green hard hats shall be worn by all rank and file maintenance employees.
- White hard hats shall be worn by all construction employees, management and first-level maintenance supervisors.
- Operator instructors are permitted to wear either yellow-green or blue hard hats. Blue hard hats are strongly encouraged to identify operator instructors on the worksite.

#### **Specifications**

Hard hats consist of two components: the helmet and the adjustable suspension. All PennDOT issued hard hats meet ANSI/ISEA Z89.1, Type 1, Class E requirements. Hard hats may not be worn backwards or sideways.

#### Styles and Sizes

The V-Gard® Protective Cap with a brim at the front is available in three sizes (listed below).

- Small (fits sizes 6-7½)
- Medium (fits sizes 6½-8)
- Large (fits sizes 7-8½)

The V-Gard® Protective Hat with a full (safari) brim that extends all the way around the hat is only available in one size: Medium (fits sizes 6½ to 8).

NOTE: The sizes of the suspension and hard hat shall match.

#### **Decals and Accessories**

Only PennDOT issued decals, approved by the Employee Safety Division, may be applied to the hard hat. No writing or markings are permitted on the outside of the hard hat.

Chin straps are available, provided by the Department, and recommended for employees that perform work that involves looking down frequently or frequent exposures to gusts of wind, to help maintain the proper position of the hard hat and to prevent it from falling off.

Neck shades, sweatbands, hard hat coolant pads, and skull caps are permitted to be worn under the suspension of the hard hat, as long as they are worn smoothly on top of the head. Accessories like these, that are designed to protect from extreme climatic heat or cold, are not issued by the Department. Sweatshirt hoods shall not be worn under the hard hat, because they cannot be worn smoothly on top of the head.

Nothing is permitted to be in the space between the suspension and the helmet, while the hard hat is worn. When an impact occurs, any object in this space can transmit significant forces to the head and neck that could

#### PPE - HEAD PROTECTION

result in serious injury or death. Wearing a baseball cap under a hard hat is prohibited, as it may interfere with the suspension's capability to work properly during an impact.

The Halo, Guardian Angel (Elite or Mini), or Freakin' Beacon lights are allowed to be utilized as a secondary accessory that can be used in conjunction with high visibility vests and apparel. These lights are authorized to be used in the field as a secondary enhancement to current high visibility vests and apparel but must follow the parameters listed in Protocol 2 of Pub 445M.

#### **Care and Replacement Cycles**

The replacement cycle of hard hats and hard hat suspensions may vary based on hours of use, the conditions they are exposed to, environmental factors, and the quality of care by the person wearing them.

The manufacturer's specifications recommend that the suspension be replaced annually and hard hats every five years for hard hats worn daily. More frequent replacement may be necessary and is based on visual inspection. The District Safety Coordinator shall establish procedures to ensure these are visually inspected at least annually. The hard hat shall be replaced anytime they are observed to be cracked or faded, and anytime it has been subjected to a significant impact. The hard hat suspension shall be replaced if it is visibly worn or damaged.

Prior to reissuing hard hats that are returned in good condition they shall be washed by the bureau/district/county in accordance with manufacturer specifications. Hard hat suspensions shall always be replaced before reissuing a hard hat. Again, make sure the suspension size matches the helmet size.

### **Climbing Style Hard Hats**

Climbing style hard hats will be allowed as a secondary option for district bridge inspection crews, tunnel employees and tree felling chain saw operators only.

All other requests for the use for the climbing style hard hats as a secondary option must be reviewed and approved by the ADE-M on a case by case basis.

The climbing style hard hat will not be worn for standard roadside work or during flagging operations.

### **Bump Caps**

Bump caps are optional in any area where hard hats are not required. Under no circumstances may a bump cap be substituted for a hard hat.

# **Purchasing Information**

Hard hats and bump caps are on contract and shall be purchased from UniqueSource.

# PPE - HEARING, EYE AND FACE PROTECTION

#### **Hearing Protection**

Hearing protection shall be worn when:

- The noise level in the work environment exceeds 85 decibels or as deemed necessary by the supervisor. (Contact your District Safety Coordinator for measuring noise levels in your work area.)
- Temporarily exposed to loud noise from operations such as pavement breaking, compacting, power impact or cutting tools, blasting, drilling, post pounding, etc.

Two types of hearing protection:

- Ear plugs inserted into ear canal to diminish noise
- Ear muffs covers and seals the entire ear

#### **Eye Protection**

Safety glasses (prescription/nonprescription) with side shields provide impact protection and shall be worn:

- When operating, or working near tools or machines that may throw particles such as woodworking tools, power tools, chippers, jackhammers, etc.
- · At the direction of the manager/supervisor.

Safety goggles provide impact protection from flying particles, dust and mist/splash and shall be worn:

- Whenever there is a need to protect the eye from particles, dust or mist/splash which cannot be stopped by wearing safety glasses.
- At the direction of the manager/supervisor.
- All eye protection devices must be marked "Z87" to indicate compliance with ANSI Z87.1 and "+" to indicate impact rating.

#### **Face Protection**

Face shields provide impact protection for the face from flying particles, dust and mist/splash and shall be worn:

- Whenever there is potential for injury to the face from flying particles, dust or mist/splash from chemicals or other substances.
- At the direction of the manager/supervisor.

If eye protection is necessary, safety glasses or goggles shall be worn along with the face shield.

Face protection devices shall be marked "Z87" to indicate ANSI compliance. Refer to Protocol 2 of Pub 445M for additional information.

# PPE - HAND AND FOOT PROTECTION

#### **Hand Protection**

Gloves shall be worn whenever there is risk of abrasions, lacerations, burns, blisters, or punctures. In cases where hazardous products are involved, refer to the Safety Data Sheet (SDS).

Waterless skin cleanser shall be made available to all employees who do not have access to other clean-up facilities.

#### **Foot Protection**

Toe protection shall be worn by all employees engaged in:

- · Pneumatic spade, drill or tamper operations.
- All areas where there is a hazard from falling or rolling objects, or from accidental tool impact.
- Appropriate safety footwear must be worn by all employees exposed to foot puncture hazards such as nails, glass, wire and other sharp objects.
- PennDOT provides toe protection that attaches to safety footwear which is stored inside crew cabs.

# PPE - TREE TRIMMING, FELLING AND REMOVAL

In addition to the work attire, high visibility apparel, and head protection requirements for field operations, employees shall wear the following while operating or servicing a chain saw:

- · Eye protection from falling or flying objects
- Face protection (logger-type mesh screens are acceptable)
- Hand protection which provides adequate protection from puncture wounds, cuts, and lacerations.
- Chain saw chaps leg protection constructed with cut resistant material, such as ballistic nylon, shall cover the full length of the thigh to the top of the boot on each leg to protect against contact with a moving chain saw.

EXCEPTION: This requirement does not apply when an employee is working from an aerial lift or operating a pole saw.

All of the above PPE shall be carried on any vehicle that is carrying a chainsaw.

# PPE - TREE TRIMMING, FELLING AND REMOVAL

	Head Protection	Face Protection (mesh screen)	Eye Protection (rated ANSI Z87+)	Hearing Protection	Hand Protection (leather gloves)	Leg Protection (chaps) ASTM F1414 compliant	Foot Protection (above the ankle boot with good tread)	PennDOT issued high- visibility apparel
Tree Trimming and Felling	Х	Х	*	Х	Х	Х	Х	Х
Manual Felling	Х	Х	*	Х	Х	Х	Х	Х
Limbing and Bucking	Х	Х	*	Х	Х	Х	Х	Х
Chipping	Х	*	Х	Х	Х		Х	**
Mechanical Yarding	Х	*	Х	Х	Х		Х	Х
Pole Saw	Х	*	Х	Х	Х	*	Х	Х
Felling from aerial lift/bucket lift (pole saw)	Х	*	Х	Х	Х	*	Х	Х
Felling from aerial lift/bucket lift (chain saw)	Х	Х	*	Х	Х	*	Х	Х

#### X Required PPE

- \* Optional PPE
- \*\* When wearing a PennDOT issued vest, it must be tear away

The PPE shall meet or exceed the following specifications:

- Logger type mesh screens shall be in the 'down' position.
- · Gloves shall be leather
- ANSI Class 2 as outer garment. (Night operations require ANSI Class 3 outer garment)
- Leg protection (chaps) shall be ASTM F1414 compliant.

# PPE - RESPIRATORY PROTECTION

When/where required, NIOSH/MSHA approved respirators shall be worn. When assigned a negative pressure respirator, a medical evaluation questionnaire and pulmonary function test are required prior to use. Respirator training and fit testing are required before wearing any respirator.

Respirators shall be worn when the following respiratory hazards exist:

- Gases
- Fumes
- Dust/mist
- · Oxygen deficiency (must use supplied air respirator)
- Unknown atmosphere/hazard (must use supplied air respirator)

# PPE - RESPIRATORY PROTECTION

Refer to the Safety Data Sheet for the products in use.

If respirators are available to employees, but not mandatory, employees must be provided with a copy of OSHA Standard 29 CFR 1910.134 Appendix D "Mandatory Information for Employees Using Respirators When Not Required." Refer to Protocol 24A of Pub 445M.

#### PPE - WELDING

Helmets shall be used during all arc welding or arc cutting operations and arranged to protect the face, neck and ears from direct radiant energy. (Helpers or attendants shall be provided with proper eye protection.) Helmets shall be made of a material which is an insulator for heat and electricity and provided with filter plates and cover plates designed for easy removal.

Goggles shall be used during all gas welding or oxygen cutting operations. Goggles shall be ventilated to prevent fogging of the lenses as much as practicable.

All operators and attendants of resistance welding or resistance brazing equipment shall use transparent face shields or goggles, depending on the job, to protect their faces or eyes, as required.

Helmets, shields and goggles shall be not readily flammable and shall be capable of withstanding sterilization. All PPE shall be constructed of a material which will not readily corrode or discolor the skin.

All glass for lenses shall be tempered. Except when a lens is ground to provide proper optical correction for defective vision, the front and rear surfaces of lenses and windows shall be smooth and parallel. Lenses shall bear some permanent distinctive marking by which the source and shade may be readily identified.

Filter lenses shall have a shade number appropriate for the work being performed for protection from injurious light radiation in accordance with OSHA 1910.113. Additional information is available in Protocol 2 of Pub 445M.

The following items approved for welding operations shall be worn when welding: coveralls (or aprons and sleeves) and gloves.

Where high visibility safety apparel is required, a fire resistant, ANSI Class 2 vest is available for purchase only from UniqueSource.

Respiratory protection is required in areas where local exhaust or general ventilating systems do not keep the concentration of toxic fumes, gases, and/or dusts below permissible exposure limits.

To protect people adjacent to the welding area from arc welding rays, noncombustible or flame proof screens or shields that permit circulation of air at floor level shall be used.

### PPE - CRACK SEALING

Employees involved in crack/joint sealing operations can be at risk for burns from hot tar or hot surfaces while operating the wand, operating the squeegee, or working on or near the tar kettle. The compressed air gun operator is also at risk from blow back of debris from the high-pressure hose. To reduce injuries from burns and flying debris, employees must wear the PPE outlined in the chart below when performing this assembly.

PennDOT currently uses several different types and brands of machines for this operation.

NOTE: To keep PPE consistent, PennDOT is identifying the wand operations for ball valve-controlled equipment as older equipment. The wand operations for trigger-controlled equipment are in reference to new/newer equipment in which employees are able to minimize their exposure to areas where there is a potential for splashing of hot liquid. Some counties use a manual loading machine, meaning the loading operator must put the sealant block in the machine. While other counties use a conveyor belt to load a machine placing the loading operator out of the material splash zone.

Please see the chart below to determine what type of machine you are using and what PPE is associated with and required for that machine. All districts must meet the minimum requirements listed below for PPE but have the option to exceed the requirements if deemed necessary. Keep in mind that if PPE requirements exceed the required PPE, there may be a concern of employees experiencing heat-related illnesses. Ensure to implement controls when necessary to prevent employees from experiencing heat-related illnesses.

Crack Sealing – PPE Chart							
-	Solid Face Shield in Down Position	Safety Glasses (rated ANSI Z87+)	Safety Goggles (rated ANSI Z87+)	Long Sleeved Shirt	Leather Gloves with Gauntlets that Extend Above the Wrist	Flame Retardant Hood and Welding Apron/ Coveralls	Hearing Protection
Employee Starting or Operating the Tar Kettle	Х	Х		Х	Х		
Loading Operator(s) Manual/Ground Loading	Х	Х		Х	Х	Х	
Loading Operator(s) Conveyor/Truck Loading		Х			X* (see #2)		
Wand Operator(s) - Ball Valve Controlled	Х	Х		Х	Х	Х	
Wand Operator(s) - Trigger Controlled	Х	Х		Х	Х		
Squeegee Operator(s)	Х	Х		Х	Х		
Compressed Air Gun Operator(s)			Х				Х
If high visibility vests are worn during this operation, they must be tear away.							

Any additional PPE exceeding the above requirements "(X)" can be worn.

# PPE - CRACK SEALING

- A. The PPE shall meet or exceed the following specifications:
  - (1) Face shields shall be in the "down" position and must be solid, transparent impact resistant plastic, not mesh. Safety glasses are required under face shields.
  - (2) Gloves shall be leather with gauntlets extending above the wrist.
  - (3) When wearing a long sleeve shirt or coveralls with gloves, the overlap shall not permit an exposure to bare skin.
  - (4) All high visibility apparel must be at minimum ANSI Class 2 visibility standards during daylight operations and ANSI Class 3 visibility standards for nighttime operations.
  - (5) If high visibility vests are worn during this operation, they must be tear away due employee job rotations and employee proximity to rotating equipment.
- B. The following PPE shall be worn when performing the following tasks:
  - (1) Loading operators (manual/ground loading) shall wear a hard hat with full face shield attached in the "down" position with safety glasses, long sleeved shirt, long pants, leather gloves with gauntlets that extend above the wrist, safety footwear and an ANSI Class 2 outer garment (Night operations require ANSI Class 3 outer garment), flame retardant hood and a flame retardant welding apron or flame retardant coveralls.
  - (2) Loading operators (conveyor/truck loading) shall wear a hard hat, safety glasses, long pants, regular work gloves\*, safety footwear and an ANSI Class 2 outer garment (Night operations require ANSI Class 3 outer garment).
  - (3) Wand (Ball Valve Controlled) operators shall wear a hard hat with full face shield attached in the "down" position with safety glasses, long sleeved shirt, long pants, leather gloves with gauntlets that extend above the wrist, safety footwear and ANSI Class 2 outer garment (Night operations require ANSI Class 3 outer garment), flame retardant hood and a flame retardant welding apron or flame retardant coveralls.
  - (4) Wand (Trigger Controlled) operators shall wear a hard hat with full face shield attached in the "down" position with safety glasses, long sleeved shirt, long pants, leather gloves with gauntlets that extend above the wrist, safety footwear and ANSI Class 2 outer garment (Night operations require ANSI Class 3 outer garment).
  - (5) Squeegee operators shall wear a hard hat with full face shield attached in the "down" position with safety glasses, long sleeved

# **PPE - CRACK SEALING**

- shirt, long pants, leather gloves with gauntlets that extend above the wrist, safety footwear and ANSI Class 2 outer garment (Night operations require ANSI Class 3 outer garment).
- (6) Compressed air gun operator(s) shall wear a hard hat, long pants, safety goggles, hearing protection, safety footwear and ANSI Class 2 outer garment (Night operations require ANSI Class 3 outer garment).
- (7) Any employee operating, examining, addressing mechanical issues, or checking material levels shall wear a hard hat with full face shield attached in the "down" position with safety glasses, long sleeved shirt, long pants, leather gloves with gauntlets that extend above the wrist, safety footwear and an ANSI Class 2 outer garment (Night operations require ANSI Class 3 outer garments).
- C. Employees who have been splashed or sprayed with hot liquid, should cover the affected area with water to cool down the hot liquid or apply burn gel packets from first aid kits.
- D. If seeking professional medical treatment, do not attempt to remove material that is attached to the skin.
- E. Training required prior to crack sealing operations includes "Liquid Asphalt Safety/Crack Sealing Maintenance Assembly Training (MAT)" provided by a certified instructor or Operations and Performance Office staff and the "Tar Kettle Operation" training course provided by certified operator instructor within the past four years.
- F. Employees are not permitted to ride on vehicles and equipment unless specifically designed for the purpose of transporting employees.

## **PPE - HOT POUR MASTICS**

All districts must meet the minimum requirements listed below for PPE but have the option to exceed the requirements if deemed necessary. Keep in mind that if you exceed the required PPE, there may be a concern of employees experiencing heat-related illnesses. Ensure to implement controls when necessary to prevent employees from experiencing heat-related illnesses. The following PPE shall be worn when performing the following tasks in an HPM operation to reduce the potential hazards and possibility of burns.

- Loading operators shall wear a hard hat with full face shield attached in the down position, long sleeved shirt, long pants, leather gloves with gauntlets that extend above the wrist, safety footwear and an ANSI Class 2 outer garment (Night operations require ANSI Class 3 outer garment), flame retardant hood and a welding apron.
- Dump operator shall wear a hard hat with a full face shield attached in the down position, long sleeved shirt, long pants, leather gloves with gauntlets that extend above the wrist, safety footwear and an ANSI Class 2 outer garment (Night operations require ANSI Class 3 outer garment).
- Squeegee operators shall wear a hard hat, long sleeved shirt, long pants, leather gloves with gauntlets that extend above the wrist, safety footwear and ANSI Class 2 outer garment (Night operations require ANSI Class 3 outer garment).
- Drag box operator(s) shall wear a hard hat, long sleeved shirt, long pants, leather gloves with gauntlets that extend above the wrist, safety footwear and ANSI Class 2 outer garment (Night operations require ANSI Class 3 outer garment).
- Compressed air gun operator(s) shall wear a hard hat, long pants, safety goggles, safety footwear and ANSI Class 2 outer garment (Night operations require ANSI Class 3 outer garment).
- When wearing a long sleeve shirt or coveralls with gloves, the overlap shall not permit an exposure to bare skin.

Training required prior to HPM operations includes "Liquid Asphalt Safety/Crack Sealing Maintenance Assembly Training (MAT)" provided by a certified instructor or Operations and Performance Office staff and the "Tar Kettle Operation" training course provided by a certified operator instructor within the past four years.

Additional information is available in Protocol 2 of Pub 445M.

# **PPE - HOT POUR MASTICS**

Please refer to the chart below to determine what type of PPE is required for the job being performed.

	Hard Hat & Outer Garment Must Meet or Exceed ANSI Class 2 Reflectivity	Solid Face Shield in Down Position	Safety Goggles (rated ANSI Z87+ for fine dust/mist)	Long Sleeved Shirt	Leather Gloves with Gauntlets That Extend Above the Wrist	Flame- Retardant Hood and Welding Apron
Employee starting or operating the tar kettle	Х	Х		Х	Х	
Loading Operator(s)	Х	Х		Х	Х	Х
Dump Operator	Х	Х		Х	Х	
Squeegee Operator(s)	Х			Х	Х	
Drag Box Operator	Х			Х	Х	
Compressed Air Gun Operator(s)	Х		Х			

## **PPE - SEAT BELTS**

#### Seat belt use for all equipment:

- Seat belts need to be inspected daily by the operator for signs of damage (e.g. cut/frayed material) and kept in proper working condition.
- Do not remove seat belts that are original equipment.
- It is the responsibility of the supervisor/manager to educate employees on the safe use of equipment with and without seat belts.

#### Seat Belt Extenders:

- If a Seat Belt Extender is needed, the department may provide one in accordance with operational efficiency.
- The primary resource for procuring a seat belt extender will be the manufacturer of the vehicle/equipment being utilized.
- If the manufacturer does not offer a seat belt extender, a universal extender may be utilized so long as it complies with 49 CFR Part 571.209 of the Federal Motor Vehicle Safety Standards.

Seat belts and shoulder straps, for vehicles so equipped, must be worn properly with the seat belt secured over the lap and the shoulder harness secured over the arm and shoulder. Seat belts and shoulder harnesses must always be used when:

- Operating PennDOT vehicles and equipment.
- Operating personal vehicles on PennDOT business.
- · Riding in any vehicle while on PennDOT business.
- Occupying a stationary or shadow vehicle in a work zone, or where the potential for a collision exists.

EXCEPTION: If manufacturer recommendations on the use of seat belts and shoulder harnesses during operations differ from PennDOT policy, seat belts and shoulder harnesses are to be worn in accordance with manufacturer recommendations when operating PennDOT vehicles and equipment.

#### Additional Seat Belt Use for Paint Trucks

Operators and passengers shall wear seat belts and shoulder harnesses (if equipped) whenever the painting vehicle travels to the next painting site at speeds exceeding 20 mph. Alternately, painting operators shall move to the cab and be secured by those safety belts and harnesses if

### **PPE - SEAT BELTS**

the distance to the next job exceeds one mile. Operators must wear properly secured safety belts at their working stations if:

- They are not operating the controls while standing; or
- They can easily reach the controls while seated.

If employees are not actively engaged in the painting operation and are traveling at speeds exceeding 20 mph, then the employee(s)/operator(s) are not permitted to be in the back enclosed cab and shall reposition to the front enclosed cab of the paint truck, supply truck or foreman vehicle for safety purposes.

# MEDICAL SURVEILLANCE PROGRAM

Medical surveillance testing is required for employees that are exposed to specific occupational hazards, as described in this section. This list is not all inclusive. For additional information, refer to Chapter G of Pub 445M or contact your District Safety Coordinator or the Employee Safety Division.

#### Paint application or removal (30 days or more)

Employees working with lead-based paint undergo annual testing to include levels of lead, toluene, chromium and zinc protoporphyrin (ZPP) in the blood, a urinalysis, liver function study and complete blood count.

#### Lead

Employees entering a containment area for lead based paint abatement and employees exposed to airborne concentrations of lead at or above 30µg/M³ at least one day per year, shall have a blood test to check lead and ZPP levels two times within a 365-day period (once during the work season just before the risk of exposure to airborne lead is the greatest and once as soon as possible after the final entry into the containment area).

### Welding

Employees engaged in welding undergo annual testing to include levels of lead, toluene, chromium and ZPP in the blood and a liver function study.

# Herbicide application

Employees working with herbicides undergo annual testing to include a complete blood count and liver function study. A posteroanterior and lateral chest x-ray and pulmonary function test are required every three years.

# MEDICAL SURVEILLANCE PROGRAM

#### **Asbestos**

Employees that are required to enter a containment area and wear a negative pressure respirator shall undergo an annual pulmonary function test and review of their physical and health history. A posteroanterior and lateral chest x-ray (with a "B Read") shall be performed in accordance with Chapter G of Pub 445M.

### MACHINE SAFEGUARDING

This protocol applies to all PennDOT employees working with machines, equipment, vehicles, and power tools that are exposed to a point of operation, ingoing nip points, reciprocating motion, rotating parts, flying chips and spark hazards. These procedures shall be consistent with federal laws and commonwealth policy. Any machine part, function or process that may cause injury, shall be safeguarded. When the operation of a machine or accidental contact with it can injure the operator or others in the vicinity, the hazards shall be either controlled or eliminated.

Additional information is available in Protocol 1A of Pub 445M.

# **ELECTRICAL SAFEGUARDING**

This protocol provides PennDOT employees along with electricians the basic information for assuring a safe workplace, free from recognized electrical hazards which may cause serious injury or death. This protocol applies to all PennDOT employees engaging in work with and/or around electricity. This protocol is also applicable to employees who perform service and maintenance work on electrical equipment, vehicles or other powered equipment that are 50 volts or higher.

Additional information is available in Protocol 1B of Pub 445M.

# LOCKOUT/TAGOUT

This protocol is to safeguard employees from unexpected release of hazardous energy while performing service and maintenance on machines or other powered equipment. This protocol identifies the practices and procedures needed to safely shut down, lockout and/or tagout and restart equipment. This protocol also identifies the requirements for employee training and periodic inspections to ensure energy control procedures are up-to-date and fully implemented by employees.

Additional information is available in Protocol 5 of Pub 445M.

# HAZARDOUS SUBSTANCE PROGRAM

All employees occupationally exposed to hazardous substances shall attend one of the following Right-to-Know Hazardous Substances courses within 120 days of hire and annually thereafter:

- For Hazardous Substance Coordinators virtual/classroom instruction using the PowerPoint presentation and training materials developed and maintained by the Employee Safety Division.
- Web-based instruction, available through Employee Self-Service (ESS) is utilized for all other employees.

All containers of hazardous substances, both original and secondary, shall be labeled or tagged using GHS method to identify the product name and hazard information. If feasible, specific PPE and precautionary statements should also appear on the label. All labels and tags shall be legible.

#### Supervisors/Foremen shall:

- Maintain Safety Data Sheets (SDSs) applicable to hazardous substances used for assigned jobs inside crew cabs, stockpiles, and garages for easy access by crew members.
- Ensure employees have, use, and are trained on PPE for all hazardous substances at their work sites specified by the SDS, the JSA Manual (Pub 517), and internal policies.
- Review the SDS for any hazardous substances an employee may handle or work around before the employee engages in that work.
   This review shall include the PPE requirements, proper handling and storage methods, and first aid guidance.
- Immediately notify employees of any changes in the assigned work, job procedures, or work site, that might dramatically increase the potential for, or risk of, exposure to hazardous substances.

Additional information is available in Protocol 6 of Pub 445M.

# **CONFINED SPACE ENTRY PROCEDURES**

Every step shall be taken to protect employees from the hazards associated with confined space work. For additional information, refer to Protocol 7 in Pub 445M or contact your District Safety Coordinator or the Employee Safety Division.

#### Spaces that meet all the following criteria are confined spaces:

- · Large enough to bodily enter
- · Limited means of entry and exit
- · Not designed for continuous human occupancy

Examples of confined spaces include, but are not limited to:

- Tanks, sewers
- · Pits, culverts, inlets, pipelines, pipes
- · Trenches deeper than four feet
- Utility vaults, manholes, bridge box beams, sewage digesters

If an employee shall enter a confined space, that space shall be classified prior to entry. The classification process identifies the precautions that shall be taken to enter these spaces safely. If the space has not been classified, the employee shall notify their supervisor; the supervisor will arrange for a Cataloger to inspect and classify the space.

# **Classifying and Cataloging Spaces**

PennDOT has designated employees, Catalogers, who are specially trained to evaluate and classify confined spaces. These individuals determine the specific procedures that shall be followed in order to ensure safe entry into confined spaces. Once the space has been classified, it can be entered as long as the proper procedures are followed. PennDOT has four basic classifications of confined spaces:

- Non-Permit Required Confined Spaces are spaces that meet the basic definition of a confined space, but do not have any additional recognized hazards. These spaces do not require any additional actions prior to entry.
- Permit-Required Confined Spaces that can be Reclassified are spaces that contain physical or mechanical hazards that shall be addressed prior to entry. These spaces do not contain, or have the potential to contain, a hazardous atmosphere.

# **CONFINED SPACE ENTRY PROCEDURES**

- Permit-Required Confined Spaces that can be Entered using Alternate Entry Procedures are spaces that contain, or have the potential to contain, only atmospheric hazards. This would include low levels of oxygen or high levels of dangerous gases. These spaces cannot contain any physical or mechanical hazards. The atmospheric hazards shall be controlled by either natural or forced air ventilation. These spaces require continuous monitoring.
- Full Permit-Required Confined Spaces (PRCS) are spaces that
  cannot be reclassified or entered using alternate procedures.
  These spaces have hazards that cannot be effectively controlled.
  Entering these spaces requires a confined space permit, readily
  available rescue personnel, and specialized training and
  equipment. Entry into PRCS by PennDOT personnel without the
  support of the Employee Safety Division and approval of the
  Deputy Secretary for Highway Administration is prohibited.

#### **Designing New Structures**

When designing new structures, the structures shall be designed to avoid creating permit-required confined spaces. This includes looking at entries to and exits from spaces and sources of fresh air.

### **Confined Spaces on Contracted Jobs**

Most spaces associated with new construction are temporary. Transportation Construction Inspectors (TCIs) could be required to enter some of these temporary spaces to conduct inspections. Contractors are responsible for providing a confined space program to protect PennDOT employees from the hazards associated with these spaces.

Before PennDOT construction employees enter a confined space, they shall be familiar with the characteristics of the confined space, the procedures that shall be followed to safely enter the space, and the steps the contractor took to identify and address all hazards associated with that space. If there are questions about the effectiveness of a contractor's program to protect PennDOT employees, the employees are to report the issues to their supervisor.

#### FIRE PREVENTION AND CONTROL

This protocol affects all PennDOT employees including those who work with or around flammable and combustible materials, or engage in hot work activities. Employees are expected to comply with all elements of the PennDOT Fire Prevention and Control protocol. This protocol provides PennDOT employees with the safety requirements necessary to assure the safety of PennDOT employees and visitors from the various hazards associated with fire. Information is provided for the prevention of fires from occurring (Fire Prevention), and the proper methods for responding to fires once they have started (Fire Control).

Additional information is available in Protocol 8 of Pub 445M.

# **BLOODBORNE PATHOGENS**

Bloodborne pathogens are disease causing microorganisms that are present in human blood and other potentially infectious material (OPIM). Among infectious diseases, HIV/AIDS and Hepatitis B and C viruses are the most prevalent.

Persons who have or are perceived to have bloodborne infections/diseases are to be treated with respect and dignity, and shall not be discriminated against through the denial of government services or employment. All services normally provided to eligible individuals will be provided regardless of whether they have or are perceived to have bloodborne infections/diseases.

Employees are expected to work in a professional manner with coworkers, members of the public and clients who have or are perceived to have bloodborne infections/diseases.

No current or prospective employee, consultant, or vendor will be required to disclose their health and medical status related to bloodborne infections/diseases, to undergo diagnostic testing associated with bloodborne infections/diseases as a condition of employment, or to reveal the results of bloodborne infection/disease tests, whether testing is administered during commonwealth work time or not, unless required by federal or state laws or regulations.

Employees are to use universal precautions in all situations involving potential exposure to bloodborne pathogens.

Employees whose workplace, or work assignment, has a high likelihood for occupational exposure will be provided appropriate PPE to help reduce exposure. Additionally, appropriate engineering and work practice controls will be implemented and used.

# **BLOODBORNE PATHOGENS**

Health and medical information of employees, members of the public, and clients, including test results, will be maintained in accordance with established confidentiality laws, regulations and policies.

PennDOT is committed to ensuring the utmost protection of confidential medical information. Employee medical information will be maintained in accordance with established confidentiality laws and regulations and commonwealth privacy rules.

An employee shall immediately notify their supervisor when contact is made with blood or OPIM. If the source of the blood is known, report this information to the supervisor and/or healthcare professional providing care because it can play a vital role in determining the course of treatment. If the employee requests medical treatment or if the supervisor identifies that a potential exposure occurred, the employee shall be taken for medical treatment in accordance with PennDOT's procedures for reporting a work-related injury.

Certain work operations increase an employee's potential for an exposure to a bloodborne pathogen because the probability of contact with blood or bodily fluids exists. The following PennDOT operations may be most at risk for potential exposure:

- Employees assigned to litter pickup
- Janitorial/Housekeeping Staff
- First Responders
- Pipe Flushing Crews
- Wastewater Treatment Plant Operators
- Any employee whose supervisor feels that the potential for exposure exists, upon review and confirmation by the District Safety Coordinator or the Central Office Employee Safety Division.

Employees who are identified as at risk for potential occupational exposure to blood or other potentially infectious material shall receive bloodborne pathogens training annually. Course instruction includes familiarization with PennDOT's Exposure Control Plan and instruction regarding engineering controls and work practices that minimize the risk of exposure, universal precautions, availability and use of PPE, potential exposure risks, and methods of blood/bodily fluid clean up.

Hepatitis B vaccinations are recommended for any employee involved in operations where the potential for exposure exists as identified in the

# **BLOODBORNE PATHOGENS**

Exposure Control Plan. The commonwealth's health insurance program provides coverage for the administration of this vaccination. If health insurance coverage exists, it shall be utilized. Any additional costs, such as co-payments, should be prepaid or direct billed to the employee's organization.

Additional information is available in Protocol 10 of Pub 445M.

# PRE-OPERATIONAL REVIEW PROCESS

It is PennDOT's policy to ensure employees are protected from potential hazards associated with a new or modified piece of equipment or vehicle. This protocol applies when there is a request for the review of a new or modified piece of equipment or vehicle to be implemented in the workplace. Any modification requests to equipment/vehicles must be sent to the fleet management division for review and approval.

Additional information is available in Protocol 11 of Pub 445M.

# SLIP, TRIP, AND FALL PREVENTION

Working safely is a responsibility shared by all employees. Managers and supervisors are to ensure there is an awareness of these slip, trip, and fall guidelines to educate employees on how their work practices can reduce these types of injuries. Employees are to perform their duties in the safest manner possible and adhere to all established safety rules, procedures, and work practices.

Methods for reducing the risk of slip, trip, and fall injuries include proper housekeeping practices in offices, stockpiles, staging buildings, garages, and field work sites.

- · Place trash in proper receptacles immediately.
- Keep walkways clear.
- Clean spills promptly using the approved method and immediately place warning devices (signs or cones), when appropriate.
- Never allow desk or file drawers to remain open while unattended.
- Use appropriate rugs and mats. Keep them clean and dry.
- Store all tools and materials in their proper place.
- Never block fire extinguishers, first aid kits, or other emergency items with tools and materials.

# SLIP, TRIP, AND FALL PREVENTION

- Keep work areas clean and free of tripping hazards such as electrical cords, boxes, files, personal items, and debris.
- Use drip trays to catch leaks from equipment or vehicles.
- Ensure materials are stored correctly; use shelving to provide additional walking/work space.

#### Here are some other safe practices:

- · Paint floors to indicate permanent elevation changes.
- Place drums or cones on temporary elevation changes to highlight the hazard.
- Place mats in high traffic areas.
- · Highlight common walkways using paint.
- Implement a schedule to eliminate buildup of snow and ice on walkways.
- If walking on a slippery surface, point toes slightly to the side and take short steps.
- If walking up steep hills, turn sideways and take short steps.
- Use only approved ladders and ensure they are in good working condition.

When getting on/off vehicles and equipment, and when ascending and descending a ladder:

- Maintain three points of contact. Three points of contact means using two hands and one foot or two feet and one hand.
- · Do not jump off ladders, vehicles, or equipment.
- Keep vehicles and equipment free from slip hazards such as spills, materials, tools, and debris.
- Avoid carrying tools, materials, drinks, etc.

#### Wear proper footwear:

- Safety footwear for field employees shall be an "above the ankle" design.
- Footwear shall be replaced when it becomes worn or damaged.
- Athletic footwear (i.e., sneakers or tennis shoes) is not permitted for field work.

# SLIP, TRIP, AND FALL PREVENTION

- Snow/ice cleats shall not be worn while operating a vehicle/mobile equipment and shall only be donned after exiting the vehicle/mobile equipment.
- · Snow/ice cleats shall be removed prior to using a ladder.

Be aware of what surrounds you and others:

- Keep your eyes on the path that you are walking.
- · Keep your mind on the task of walking.
- Be alert of elevation changes.

If you do fall, it is important not to reach out. Let your body crumble and roll. Bend your elbows and knees, and use your legs and arms to absorb the fall.

Additional information is available in Protocol 12 of Pub 445M.

### SAFE DRIVING PRACTICES

PennDOT requires operators of vehicles and equipment to drive safely and obey all traffic laws. Failure to exercise any of the following safe driving practices will be considered a safety violation:

- Comply with all guidelines, procedures, and directives pertaining to the operation of PennDOT vehicles and applicable sections of the Pennsylvania Vehicle Code.
- Ensure the proper use of safety restraints (e.g. seat belts) by all vehicle occupants where equipped.
- Never operate a motor vehicle while under the influence of alcohol, illegal drugs or any other substance that impairs ability to drive.
- Never engage in text messaging or any unlawful use of a cellular telephone or other handheld device, (e.g. Android and/or iPhone), when driving a PennDOT vehicle or personal vehicle on PennDOT business.
- Properly position mirrors to minimize blind spots.
- When possible, avoid backing. Where two or more employees are present, one shall act as a ground guide (spotter) prior to backing a vehicle. Discuss the hand signals that will be used with a designated spotter prior to backing to ensure effective communication. The use of a spotter does not relieve the driver of the responsibility to back up safely. If a spotter is not available, operators are required to ensure the area is clear of personnel or obstructions.

# SAFE DRIVING PRACTICES

- Complete a circle of safety prior to entering a vehicle. Walk completely around the vehicle and observe conditions underneath, on, around, and above the vehicle for potential hazards.
- Always maintain an appropriate following distance to provide necessary reaction time should a vehicle ahead slow down or stop suddenly.
- Avoid rear-end collisions by ensuring the vehicle does not drift backwards, by slowing down gradually to avoid abrupt stops, and by signaling intentions in advance of turns.
- Be alert and yield to pedestrians at the workplace and on the highway.
- Always ensure the vehicle remains in the lane of travel. If lane encroachment is unavoidable due to the size of the vehicle, be prepared to yield to opposing traffic to allow for safe passage.
- Yield to rail vehicles at all railroad crossings, being attentive to pavement markings, warning signs and approaching vehicles.
- Negotiate turns by using proper signaling, checking mirrors, yielding at crosswalks and to other vehicles as required by law, and being aware of surroundings.
- Adjust traveling speeds for conditions including but not limited to weather, road surface conditions, traffic, emergency situations, and variations in road width or direction.
- Utilize safety devices or other equipment appropriate for extreme weather conditions (such as chains).
- Check for and properly judge clearances with all fixed objects such as buildings, utility poles, guy wires, mailboxes, guiderail, parked vehicles, curbs, signs, etc.
- Park properly by positioning the vehicle within a designated parking space or other safe area. Secure/lock unattended vehicles to prevent theft or unauthorized use.
- Ensure all tools, equipment, material and doors are properly secured for transport.
- Report all mechanical defects or other noticeable wear promptly to the appropriate Equipment Manager, Mechanic Supervisor, or other management personnel. This may be done using the M-614 form. Collisions caused by mechanical failure due to a reasonably detectable defect that was not reported, due to a reported defect that was not repaired, or due to abusive driving are unacceptable.

# SAFE DRIVING PRACTICES

- Ensure safe operation of all vehicles and equipment in accordance with the manufacturer's designed purpose and operator manual.
- No altering of equipment or vehicles of any kind is permitted without the Equipment Manager's written approval in conjunction with Fleet Management approval.
- · Always drive defensively.

# SAFE DRIVER TRAINING

Supervisors shall ensure that the following training requirements are met by their employees. Supervisors may require employees to attend safe driver training more frequently than indicated below if they are involved in incidents because of unsafe driving practices or are observed engaging in unsafe driving behavior.

The safe driver training program includes participation in either an instructor-led Safe Driver Training course or a Safe Driver Training Online course.

#### Safe Driver Training Instructor-led

Only employees who operate crew cabs and commercial vehicles for PennDOT shall complete the instructor-led course. New employees shall complete this course within 120 calendar days of hire, and current employees who have never completed this course shall complete it immediately. These employees shall complete the instructor-led course every two years from the date they last completed the course.

This course consists of six modules and takes approximately five hours to complete. Actual driving scenarios and questions guide discussion on proper decision making throughout the course. Quizzes are taken after each module to test comprehension.

# **Safe Driver Training Online**

All employees who are not required to take the instructor-led course shall complete the online course. New employees shall complete it within 90 calendar days of hire. All employees who take this online course are expected to complete it again every four years thereafter.

Additional information is available in Protocol 13 of Pub 445M.

# REQUIREMENTS FOR COMMERCIAL DRIVERS

The requirements of this section apply to all CDL employees, employees that are required to possess a valid commercial driver's license to operate commercial vehicles for PennDOT, often referred to as CDL employees, to facilitate compliance with regulations established by the Federal Motor Carrier Safety Administration.

#### **Drug and Alcohol Testing**

All CDL employees shall receive a current copy of the Employee Guide to CDL Drug and Alcohol Testing during in-processing when they are hired. This guide contains the rules and policies regarding drug and alcohol use, required tests, testing procedures, test results, and the consequences for positive test results. The Employee Education/Training Acknowledgement form shall be completed and signed by the employee, and permanently filed in their Electronic Official Personnel File (E-OPF).

This program shall be administered in accordance with the Commercial Driver License Drug and Alcohol Testing and Related Procedures manual (M505.5).

Supervisors of CDL employees shall:

- Attend the mandatory CDL supervisory training at their first opportunity, and subsequent training, as needed.
- Make appropriate arrangements for escorting or transporting employees to a collection site, when required.
- Determine the need for reasonable suspicion or post-accident testing, and ensure that such testing occurs immediately.

Employees shall take the Drug and Alcohol Testing Program Federal Cover Sheet and the Federal Drug Testing Custody and Control Form (drug test only) with them to the collection site.

NOTE: Section 3756 of the Pa. State Vehicle Code requires police officers to request that drivers of commercial motor vehicles submit to alcohol and controlled substance testing, when responding to an accident involving a commercial vehicle. Under these circumstances the employee shall be given time to be tested, but MUST NOT be taken/escorted by the employer. The employee shall not be given a Drug and Alcohol Testing Program Federal Cover Sheet and Federal Drug Testing Custody and Control Form. The employee shall submit the invoice to the employer; the employer is responsible for payment directly to the service provider. Test results shall be sent to the requesting police department, not to the employer.

# REQUIREMENTS FOR COMMERCIAL DRIVERS

CDL employees shall notify their supervisor of any moving violation (other than parking) within 30 days of conviction.

On an annual basis, CDL employees shall report all violations of motor vehicle traffic laws and ordinances (other than parking) of which they have been convicted or has forfeited bond or collateral during the preceding 12 months.

CDL employees shall not possess more than one driver's license.

All temporary CDL employees, and all permanent CDL employees hired on or after August 1, 2016, shall maintain the following with the Bureau of Driver Licensing:

- A self-certification designation of non-excepted interstate (NI), or non-excepted intrastate (NA) if under age 21.
- · A current Medical Examiner's Certificate
- Employees that receive an additional CDL endorsement such as a Tanker or HazMat, shall communicate this to a Driver License Center for proper recordkeeping.

Monthly driver record checks are conducted to ensure all CDL employees are maintaining a valid commercial license of the appropriate class and with any required endorsements. Loss of a driver's license or driving privileges shall be reported immediately.

CDL employees may be required to physically produce their driver license at any time, upon request from a supervisor or manager. Failure to do so immediately, may result in disciplinary action.

# PORTABLE LADDER SAFETY

Employees shall comply with all PennDOT safety rules and regulations concerning ladder safety by:

- · Attending all necessary training or instruction
- · Performing visual ladder inspections before use
- Ensuring the appropriate ladder is selected and used properly

Damaged or defective ladders shall be reported to a supervisor, properly tagged, and removed from service immediately until it is repaired or replaced.

Additional information is available in Protocol 14 of Pub 445M.

# **FALL PREVENTION AND PROTECTION**

Appropriate fall protection methods and procedures shall be established, implemented and monitored by a competent person for operations that will expose employees to unprotected edges six feet or more above a lower level before beginning the operation and until the operation is completed. This shall be accomplished in accordance with PennDOT guidelines and Protocol 15, Pub 445M.

### **GARAGES**

For the protection of employees and visitors in PennDOT garages, mechanics' work areas have been outlined on the floor with a four inch wide red line. Only mechanics, supervisors, managers or employees assigned to assist the mechanics are permitted within these work areas. Employees that are assigned to other areas shall not enter these work areas unless specifically assisting a mechanic by request or assignment.

The garage weld shop or welding area is intended for the welder, their assistant, supervisors, and managers. No employees are permitted in the weld shop unless specifically granted permission by the Equipment Manager or Mechanic Supervisor.

To allow safe passage to offices, restrooms, and exits, and to reduce exposures to hazards for people that are not directly a part of the ongoing work operations in the garage, safe passage areas, a minimum of three feet wide, are delineated on the floor with a four inch wide yellow line. Employees traveling through garage areas are required to remain within the safe passage area. Once outside the safe passage area, employees are considered within the garage work area, where proper eye protection and safety footwear is required.

Signs are posted at each doorway or entrance to the garage indicating that proper eye protection is required outside the safe passage area in the garage. A supply of proper eye protection is available at each entrance to the garage area.

Garage employees shall be provided a copy of the Employee Handbook for Garage Safety, which contains information regarding the occupational hazards related to work they perform and provides guidance regarding safe practices.

All motor vehicles in the shop for repairs or preventative maintenance that cannot be operated shall have an Out-of-Service Tag attached to the steering wheel to visibly show any operator that the vehicle is not usable until necessary repairs have been made. A deadlined magnetic strip or

### **GARAGES**

window decal may also be used, but not in lieu of the tag. Deadlined magnetic signs or window decals may be purchased through a qualified vendor. Any truck that is not tagged or labeled as described in this paragraph is presumed to be operable in its present condition without any further mechanical work necessary to make the unit roadworthy and safe for operation. The use of this tag does not relieve an operator of the obligation to complete the proper M-614 as required by department policy.

# HAND AND POWER TOOLS

Employees who work with hand and power tools should be provided a copy of the Hand and Power Tool Safety booklet, which contains information regarding the occupational hazards related to the use of hand and power tools and provides guidance regarding safe practices. Included in that booklet is a safety assessment for power tools that an employee can use to check for hazards before using the tool. Supervisors and managers of employees that use hand and power tools are encouraged to review the booklet with their employees upon receipt, and as needed.

All hand and power tools in need of repair shall be tagged to protect against accidental or inadvertent operation, when such operation could cause injury to employees. The Out-of-Service Tag shall only be removed by the garage personnel responsible for ensuring that the item has been fixed and is safe to operate.

Employees shall report any PennDOT hand and power tools in need of repair or servicing due to a mechanical or electrical problem, damage or defect, to their supervisor. Supervisors shall ensure that such hand and power tools are taken out of service by attaching an Out-of-Service Tag to it. Equipment Managers ensure that the tags are being utilized properly and track the arrival of tagged items, their repair, and their return to service. Managers of field employees are responsible to see that the tags are utilized properly in the field to correctly identify deficiencies in tools that are or should be taken out of service.

# **OFFICE ERGONOMICS**

Working in an office or teleworking comes with its share of benefits, but employees may experience muscle fatigue, strain, and pain after sitting in front of a computer for hours. Occasionally, adjustments to the position of chairs, desks, monitors, and keyboards can be beneficial to accommodate employees' unique features to allow them to work more comfortably and productively. Adjustments to work habits, such as taking breaks, changing position periodically, and stretching can also be beneficial. Web-based training is available to all office employees via Employee Self Service (ESS). The course title is Office Ergonomics for Employees WBT.

If employees are experiencing physical discomfort that may be attributable to the configuration of their workstation, they should express their concern to their supervisor. Supervisors shall investigate these concerns. If they are unable to identify and resolve the issue, they should contact the District Safety Coordinator or Employee Safety Division to request an ergonomic assessment of the employee's work station.

Employees with a medical condition that require an adjustment to their work station, should inquire about the process for submitting a request for accommodation under the Americans with Disabilities Act (ADA).

Additional information is available in Protocol 18 of Pub 445M.

# **EXCAVATION AND TRENCHING**

Employees shall be protected while working in an excavation or trench. These safe measures are in accordance with OSHA 1926, Subpart P which is included in Protocol 19, Excavation and Trenching in Pub 445M. Many hazards can and should be anticipated and addressed during the planning phase. Specific safety measures shall be implemented as described in this section.

- Before excavation, contact the Pennsylvania One Call System and ensure the location of underground utility installations are marked. When active excavation approaches the estimated location of underground installations, the exact location of the installations shall be determined by safe and acceptable means, such as hand digging.
- Employees shall not work in excavations in which there is accumulated or accumulating water, unless adequate precautions have been taken to protect employees against the hazards posed by water accumulation, which may include special support or shield systems to protect from cave-ins, or water removal.

# **EXCAVATION AND TRENCHING**

- Where the stability of adjoining buildings, walls, or other structures is endangered by excavation operations, support systems such as shoring, bracing, or underpinning shall be provided to ensure the stability of such structures for the protection of employees.
- Sidewalks, pavements, and any other adjoining structure shall not be undermined unless a support system or another method of protection is provided to protect employees from the possible collapse of such structures.
- Employees shall never be positioned underneath loads handled by lifting or digging equipment, and shall stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials. Operators may remain in the cab of vehicles with cab protectors during loading and unloading.
- Place and keep materials or equipment at least two feet from the edge of an excavation. Adequate protection shall be provided to protect employees from anything that could pose a hazard by falling or rolling from an excavation face.
- · Trenches four feet or more in depth require:
  - A safe means of egress within 25 feet of lateral travel for each employee in the trench, such as a stairway, ladder, or ramp.
  - Monitoring for signs of potential cave-in. If such signs are evident, a protective system from cave-ins is required.
  - Atmospheric testing is required where oxygen deficiency or a hazardous atmosphere exists or could reasonably be expected to exist, such as in excavations in landfill areas or in areas where hazardous substances are stored nearby.
- Trenches five feet or more in depth also require:
  - o A protective system from cave-ins
  - Daily inspections of excavations, adjacent areas, and protective systems prior to the start of work, and after every rainstorm or other hazard increasing occurrence, for evidence of possible cave-ins, failure of protective systems, hazardous atmospheres, and other hazardous conditions to which employee exposure can be reasonably anticipated. Evidence of these shall be adequately addressed before employees are permitted to enter the excavation.

# **EXCAVATION AND TRENCHING**

- Protective systems shall have the capacity to resist without failure all loads that are intended or could reasonably be expected to be applied or transmitted to the system. There are four protective systems or methods for protecting employees from a cave-in are:
  - Sloping: Excavating to form sides of a trench that are inclined away from the excavation to prevent cave-ins.
  - Benching: Excavating the sides of a trench to form one or a series of horizontal levels or steps, usually with vertical or near vertical surfaces between levels.
  - Shielding: A structure that is designed to withstand the forces imposed on it by a cave-in and thereby protect employees within the structure. Shields used in trenches are usually referred to as "trench boxes" or "trench shields."
  - Shoring: A structure that supports the sides of an excavation to prevent a cave-in.

Additional guidance regarding sloping, benching, and shielding is available on Tables 4.1 and 4.2 in the Foreman's Manual (Pub 113).

- Walkways shall be provided where employees or equipment are required or permitted to cross over excavations. Guardrails which comply with fall protection protocol shall be provided where walkways are six feet or more above lower levels.
- The soil classification shall determine what type of protection is acceptable prior to entering the excavation. Type C soil is the most common soil within Pennsylvania. When in doubt or testing remains unclear, treat the soil as Type C.

# **MANUAL LIFTING**

Employees whose job duties involve lifting need to be aware of the common causes of back injuries and exercise the following precautions, where applicable and feasible, to avoid these injuries.

- Utilize mechanical lifting devices for objects over 50 pounds.
- Evaluate your jobs and tasks to reduce risk factors. Adjust your
  work tasks to allow for the body to be in a neutral position, if
  possible. Ensure materials are stored properly to prevent reaching
  or twisting while lifting. Ensure there is enough room to make
  the lift.

### MANUAL LIFTING

- Develop good habits by being aware of your posture, while at rest and during activity.
- Use proper lifting techniques. Know the weight and size of the item to be lifted. Keep feet shoulder width apart, with one foot slightly in front of the other. When lifting objects from the ground or floor, squat down rather than bending down at the waist. Ensure a firm grip on the item to be lifted. Maintain good posture by keeping your back straight. Slowly lift the object, keeping close to your body. If you shall change direction with the object, utilize the pivot technique; turn your body by using your feet and not your waist.
- Perform stretches before you begin physically strenuous work and periodically throughout the day.
- Know your lifting limitations and ask for assistance if an object is too heavy or awkwardly shaped.
- When you are in adequate physical condition, you can lift more, bend more, and do more without overly stressing your muscles.

Safe Manual Lifting training is available as a web based training.

Additional information is available in Protocol 20 of Pub 445M.

### **UNION RELATIONS**

PennDOT is committed to incorporating a culture of safety into our everyday operations. AFSCME is in concurrence with these efforts. Therefore, County Maintenance Offices and Engineering District Offices will extend formal, written invitations to AFSCME Local Union Officials, paid Union Staff Representatives, and District Council Directors to all major safety meetings held within their district/county; including, but not limited to:

- Safety Committee Meetings
- Safety Stand Down Days
- Safety Summits
- Safety Culture Events

Additional information is available in Protocol 21 of Pub 445M.

# HAZARDS ASSOCIATED WITH NESTING BIRDS

This protocol establishes policy to ensure that employees are made aware of the potential health hazards associated with bird droppings and to identify necessary precautions to minimize the potential for exposure, including the use of PPE.

Additional information is available in Protocol 22 of Pub 445M.

#### TREE TRIMMING, FELLING AND REMOVAL

This protocol establishes safety practices, means, methods and operations for all work tasks associated with trees such as, but not limited to, marking dangerous trees and trees/logs to be cut to length, felling, trimming, limbing, bucking, chipping, yarding, unloading, storing, and transporting machines, equipment, and employees to, from and between job sites regardless of the end use of the wood.

Employees, nonessential vehicles, and equipment shall not be within two tree lengths of the tree(s) while being manually trimmed or felled. Only enter the area once the chain saw operator has acknowledged that it is safe to do so.

Additional information is available in Protocol 23 of Pub 445M.

	Head Protection	Face Protection (mesh screen)	Eye Protection (rated ANSI Z87+)	Hearing Protection	Hand Protection (leather gloves)	Leg Protection (chaps) ASTM F1414 compliant	Foot Protection (above the ankle boot with good tread)	PennDOT issued high- visibility apparel
Tree Trimming and Felling	Х	Х	*	Х	Х	Х	Х	Х
Manual Felling	Х	Х	*	Х	Х	Х	Х	Х
Limbing and Bucking	Х	Х	*	Х	Х	Х	Х	Х
Chipping	Х	*	Х	Х	Х		Х	**
Mechanical Yarding	Х	*	Х	Х	Х		Х	Х
Pole Saw	Х	*	Х	Х	Х	*	Х	Х
Felling from aerial lift/bucket lift (pole saw)	Х	*	Х	Х	Х	*	Х	Х
Felling from aerial lift/bucket lift (chain saw)	Х	Х	*	Х	Х	*	Х	х

#### X Required PPE

The PPE shall meet or exceed the following specifications:

- Logger type mesh screens shall be in the 'down' position.
- Gloves shall be leather.
- ANSI Class 2 as outer garment. (Night operations require ANSI Class 3 outer garment)
- Leg protection (chaps) shall be ASTM F1414 compliant.

<sup>\*</sup> Optional PPE

<sup>\*\*</sup> When wearing a PennDOT issued vest, it must be tear away

### **WELDING AND CUTTING (HOT WORK)**

The purpose of a hot work protocol is to establish a method to prevent fires as a result of welding, soldering, grinding or any other spark producing activity, to ensure jobs are performed safely and consideration is given to ensuring the protection of employees and property. Only those employees who have been trained in how to perform hot work may be engaged in hot work operations.

Additional information is available in Protocol 25 of Pub 445M.

#### **SCAFFOLDING**

The purpose of this protocol is to protect employees from the hazards associated with falls from scaffolds. This protocol applies to all PennDOT employees who, while performing their duties, may erect, dismantle and/or are required to use scaffolding for various job tasks. Scaffolds shall only be erected, altered, moved or dismantled by trained scaffold erectors/competent persons. All employees working in and around scaffolding will be provided access to the appropriate competent person training or awareness training based on their position/work activity.

Additional information is available in Protocol 26 of Pub 445M.

#### **RADIATION SAFETY**

PennDOT is committed to ensuring that the hazards associated with ionizing and nonionizing radiation have been adequately and appropriately addressed. This protocol affects all PennDOT employees and contractors who utilize, calibrate or administer ionizing and nonionizing radiation emitting instrumentation in the Materials Testing Laboratory or department personnel in the field that are trained on the equipment. Employees will use radiation safety best practices of time, distance and shielding to decrease possible exposure.

Additional information is available in Protocol 27 of Pub 445M.

#### LEAD EXPOSURE AND CONTROL

This protocol provides basic information for assuring a safe workplace and establishes mandatory requirements for employee protection from lead. This protocol applies to PennDOT employees and establishes minimum requirements for the performance of lead inspections and the removal of lead-based paint. All employees performing lead inspections shall hold a current PA Labor & Industry Lead Building Inspector license. When required, regardless of scope, abatement shall be performed by a third party PA licensed and certified lead contractor.

Additional information is available in Protocol 28 of Pub 445M.

#### **MOBILE EQUIPMENT**

This protocol provides PennDOT employees with the basic information for assuring a safe workplace, free from recognized mobile equipment hazards which may cause serious injury. PennDOT mobile equipment is required to be inspected at the beginning and end of each shift utilizing Form M-614 with any deficiencies being reported immediately.

Additional information is available in Protocol 30 of Pub 445M.

### **HERBICIDE SAFETY**

PennDOT is committed to ensuring that the hazards associated with herbicides have been adequately and appropriately addressed. The protocol provides PennDOT employees with the basic information for assuring a safe workplace from recognized hazards which may cause occupational illnesses or injuries associated with utilizing herbicides.

Additional information is available in Protocol 31 of Pub 445M.

#### **OUTDOOR AIR QUALITY HAZARDS**

PennDOT is committed to ensuring that the potential exposures related to uncontrolled particulate matter in the outdoor environment is appropriately addressed. This protocol provides PennDOT employees with basic information for assuring a safe workplace and establishes means for employee protection from elevated levels of particulate matter as an air pollutant in the outdoor environment.

This protocol applies to any situation in which employee(s) or contractor(s) who may potentially be exposed to levels of particulate matter which have been identified as unhealthy, very unhealthy, or hazardous by the Pennsylvania Department of Environmental Protection.

Additional information is available in Protocol 32 of Pub 445M.

#### **DEFINITIONS**

**Incident:** Includes fleet accidents, near misses, equipment accidents, and work-related injuries.

**Competent Person:** One who can identify existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authority to take prompt corrective action.

**Damage:** The breaking, damaging, creasing, cracking, tearing, denting, separation, weakening or disabling of any part of a piece of property.

**Equipment Accident:** An occurrence of one or more of the following:

- Damage, no matter how minor, to a department vehicle that tracks hours.
- Damage, no matter how minor, to private property involving contact with a department vehicle that tracks hours or any object physically attached to that vehicle.
- Injury to a human being, involving a department vehicle that tracks hours or any object physically attached to that vehicle.

**Excavation:** Any human-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.

Fleet Accident: An occurrence of one or more of the following:

- Damage, no matter how minor, to a department vehicle that tracks mileage.
- Damage, no matter how minor, to private property involving contact with a department vehicle that tracks mileage, or any object physically attached to that vehicle.
- Injury to a human being, involving a department vehicle that tracks mileage or any object physically attached to that vehicle.

MSHA: Mining Safety and Health Association

**MUTCD:** Manual on Uniform Traffic Control Devices

**Near Miss:** An event that was observed to have had the potential to be categorized as an accident but did not result in property damage, injury/illness requiring professional medical attention, or death. This includes, but is not limited to, work zone intrusions that do not result in an accident.

#### **DEFINITIONS**

NIOSH: National Institute of Occupational Safety and Health

**OSHA:** Occupational Safety and Health Administration

**Property:** Anything that is owned by a person or entity including motor vehicles, equipment, facilities, land, structures, etc.

**Safety Data Sheets (SDS):** Information provided by the manufacturers of hazardous substances and made available to employees as notification of all known risks, methods of protection and proper response to exposures.

**Safety-Sensitive Duties:** Work duties associated with the operation of a commercial motor vehicle are called "safety-sensitive". (Refer to the Employee Guide to CDL Drug and Alcohol Testing for the complete definition.)

**Trench**: A narrow excavation (in relation to its length) made below the surface of the ground.

**Work-Related Injury:** An employee requiring professional medical attention, or an employee fatality, due to an injury or illness arising while in, and related to, the course and scope of their employment with PennDOT.

#### **REFERENCES**

AFSCME Master Agreement/Memorandum

American National Standards Institute (ANSI)

PennDOT Daily Safety Talk Book, Pub 247

Department of Transportation Working Rules

Equipment Maintenance and Management Policies Manual, Pub 177

Federal Motor Carrier Safety Regulations

Flagging Handbook, Pub 234

Highway Foreman Manual, Pub 113

International Safety Equipment Association (ISEA)

Job Safety Analysis Manual, Pub 517

Labor and Industry Act 44

Manual for Employee Safety and Health, (MESH), Pub 445M

Office of Administration (OA), Administrative Manual M505.5

OA, Commonwealth Fleet Procedures Manual M615.3

OA, Injury Leave Manual M530.2

OA, Management Directives

OSHA Regulations for Construction (Part 1926)

OSHA Regulations for General Industry (Part 1910)

Pennsylvania Worker and Community Right-to-Know Act

Pennsylvania Workers' Compensation Act

Temporary Traffic Control Guidelines, Pub 213

Transitional Duty Job Examples, Pub 549

### **CONTACT INFORMATION**

# Employee Safety Division Resource Account: RA-PDEESAFETYCOORD@pa.gov

District 1-0 Jake Hoovler       814.516.2629         District 2-0 Terry Moore       814.765.0845         District 2-0 Tracey Southern       814.360.3031         District 3-0 Thomas Walker       570.692.2705         District 3-0 Eric Hans       570.217.6624         District 4-0 Jacob Hoinowski       570.561.4129         District 5-0 Andrew Wehm       610.871.4137         District 5-0 Nick Safin       484.225.2671         District 6-0 Joe Mullan       610.587.7825         District 8-0 Ron Wylie       717.775.8166         District 8-0 Clarence Coleman       717.775.8166         District 9-0 Pam Kane       814.696.7170         District 10-0 Keith Rummell       724.422.1102         District 11-0 Mark Baldigowski       412.742.7873         District 12-0 Jeff Dunn       724.439.7258
Division Chief       Vacant.         Safety Specialist Manager       610.871.4404         Dennis McArdle       610.871.4404         Safety Specialist Supervisor       724.355.4634         Richard Falvo       724.355.4634         Safety Specialist 2       717.787.6329         Safety Specialist 2       717.787.2648         Safety Specialist 2       814.355.4731         Safety Specialist 2       717.480.9412         Safety Specialist 2       717.480.9412         Safety Specialist 2       570.368.4267         Administrative Assistant       717.599.2829
All work related injury questions should be directed to Work-Related Injury Services
Questions regarding the Safety Policy Handbook can be directed to the Employee Safety Division.

#### WORKER MEMORIALS





District 4-0's Monument permanently honors the employees who died in the line of duty.

PennDOT is truly grateful for the dedicated workers who put their lives at risk every day to improve and maintain Pennsylvania's infrastructure. Sadly, 93 PennDOT employees have lost their lives in the line of duty since 1970. Memorials have been erected around the state to pay tribute to those employees.

There is a statewide memorial located in downtown Harrisburg, as well as a traveling memorial based out of PennDOT District 3's Bradford County Maintenance Office. PennDOT's District 4 office, which covers northeast Pennsylvania, recently dedicated a permanent memorial for its local workers who lost their lives.

These memorials emphasize the fact that the safety of workers in a work zone is truly dependent on each and every person on Pennsylvania's roadways.

